

Alaris SMS Platform

User's Guide

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1 Terms and Acronyms

Term	Definition
Client	Carrier from which the System owner receives traffic
System owner	System owner – a specialized carrier record used to create parent products and user accounts with access to the System's admin interface
Vendor	Carrier to which the System owner sends traffic
API	Application Programming Interface
ASR	Answer Seizure Ratio, calculated as the percentage of messages successfully received by the carrier with respect to the total number of message send attempts. For example, if the total number of send attempts is 100 and 50 of them are received by the carrier, the ASR will be 50%
DLR	Delivery Receipt, a report sent by the carrier to the original sender containing the message delivery status.
DLR(t)	DLR(total), the percentage of SMS delivered to the end user with respect to the total number of message send attempts. For example, if the total number of send attempts is 100 and 25 messages are delivered to the end user, the DLR(t) will be 25%
DLR(s)	DLR(successful), the percentage of SMS successfully received by the end user with respect to the number of messages received by the carrier. For example, if the carrier received 50 SMS and 25 of them are successfully received by the end user, the DLR(s) will be 50%
DNIS	Dialed Number Identification Service
EDR	Event Detail Record
EMA	Exponential Moving Average
ESME	External Short Message Entity (external sources and sinks of short messages)
ERMES	Enhanced Roaming Messaging System

Term	Definition
GUID	Globally Unique Identifier
ISDN	Integrated Services Digital Network
LOT	Level of Trust
MCC	Mobile Country Code
MNC	Mobile Network Code
MS Excel	MS Excel or any other spreadsheet editor
NANP	North American Numbering Plan
NPI	Numbering Plan Indicator
OLAP	Online Analytical Processing
POI	Point of Interconnection
SLA	Service Level Agreement
SMSC	Short Message Service Center
SMPP	Short Message Peer-to-Peer Protocol
SSU	Soft Switch Unit
TON	Type of Number

2 System overview

Alaris SMS Platform (further on referred to as “the System”) is a complete solution intended for carriers working in the SMS interconnect industry. The general idea of the System is to provide a carrier with a single easy-to-use point of control of all tasks related to SMS traffic management:

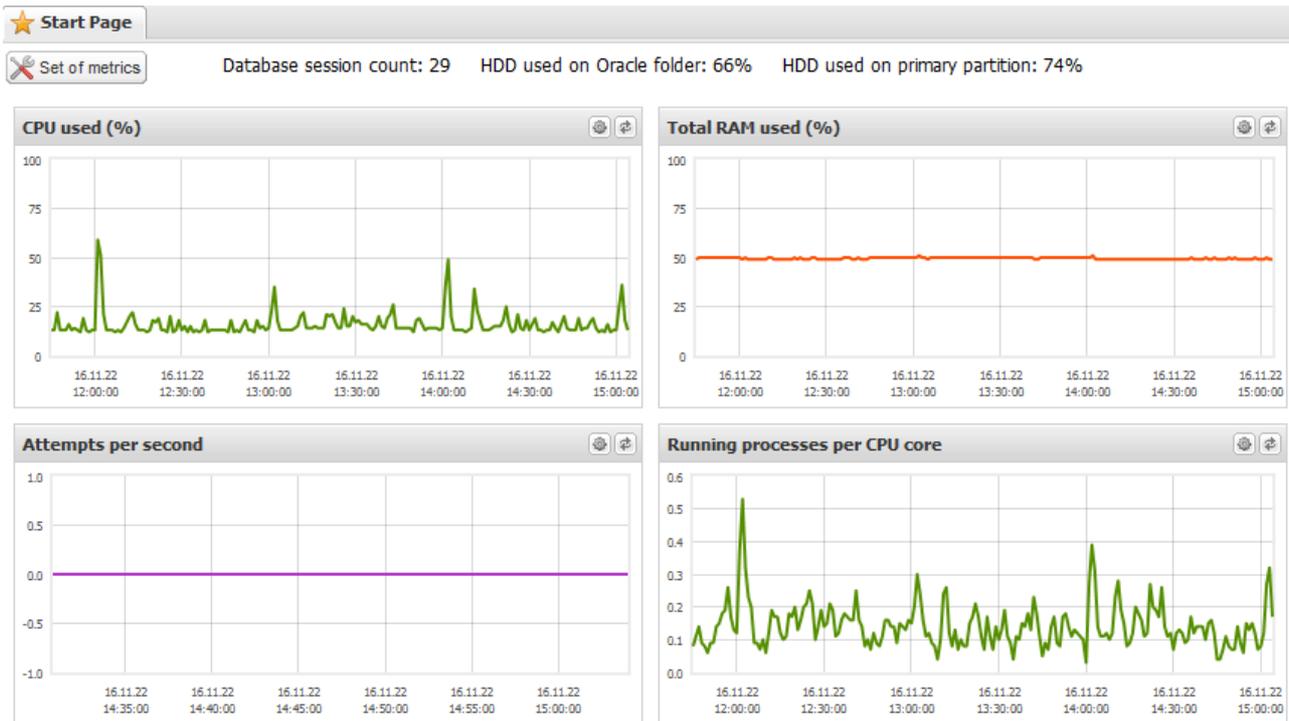
- Switching of SMS traffic over HTTP or SMPP
- Real-time provision of routing instructions to the switch based on user-defined static or dynamic rules
- Authorizing events and user registration attempts. To provide for prepaid balance control, the SMS Platform authorizes every SMS in the network. As soon as the routing System detects that a user has exhausted the balance/credit, it starts to reject all new message attempts from that user
- Clients’ billing and invoice distribution. The System provides for client account charging and invoice generation. Invoices can be automatically delivered to customers by email. The System owner can also track client payments and match these payments with the issued invoices
- Monitoring statistical parameters related to traffic behavior and System health. Detailed traffic statistics is calculated immediately after the EDR data gets into the System. Thus, all statistical layers (any combination of any customer, vendor, etc. split by any period) are preliminarily calculated in the background. This allows for instant view of any statistical layout – irrespective of the amount of requested data

Along with the SMS Platform, the company offers Alaris inVoice, a BSS solution for voice traffic management. For more detail on Alaris inVoice, refer to www.alarislabs.com.

3 Interface structure

Check out the video tutorial on the interface structure at the [Alaris YouTube channel](#).

The System provides a carrier with a set of tools that help employees in everyday activity. The user interface is web-based; no other software installation is required. The interface is designed to work with recent versions of Mozilla Firefox and Google Chrome; other browsers may not provide access to all System functions correctly.



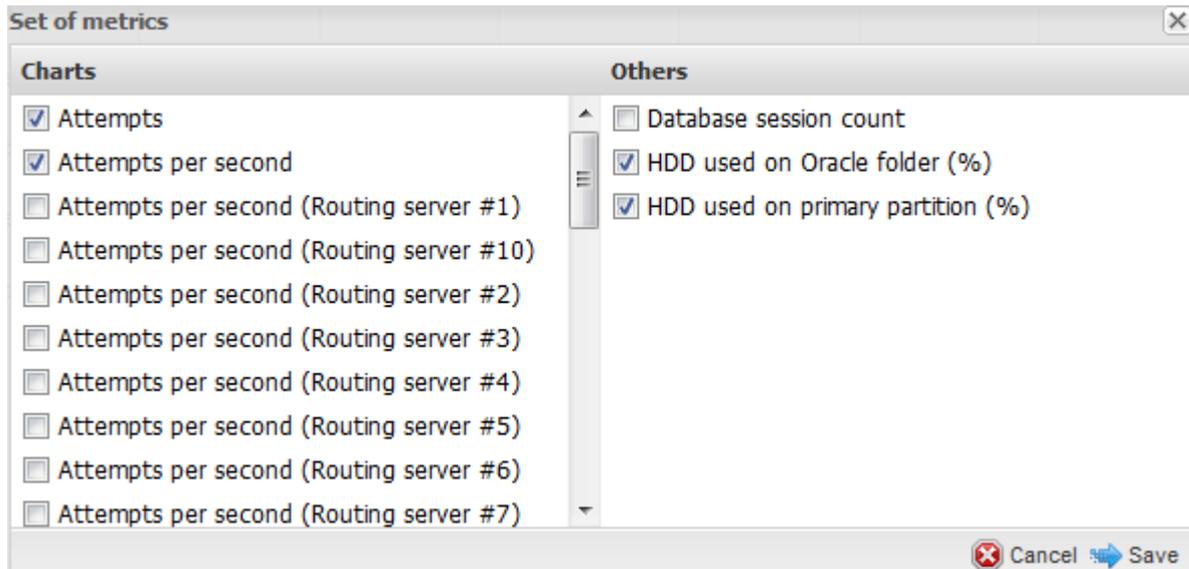
Start page

The *Start* page provides a set of auto-refreshing charts offering an overview of the traffic, database and hardware performance.

Each chart can be customized in terms of grouping the data by the period (minutes/hours/days, no grouping by default), by the number of recent values to display (100, 200, 300 or 500) and by the refresh period (1, 2, 5, 10 or 30 minutes). Use the  button in the top right corner of each chart to configure the required parameters and the  button to refresh the chart.

The list of parameters to track is configured in the *Set of metrics* view opened with the  **Set of metrics** button, located in the top left corner of the *Start* page. Select the appropriate checkboxes and click

 **Save**



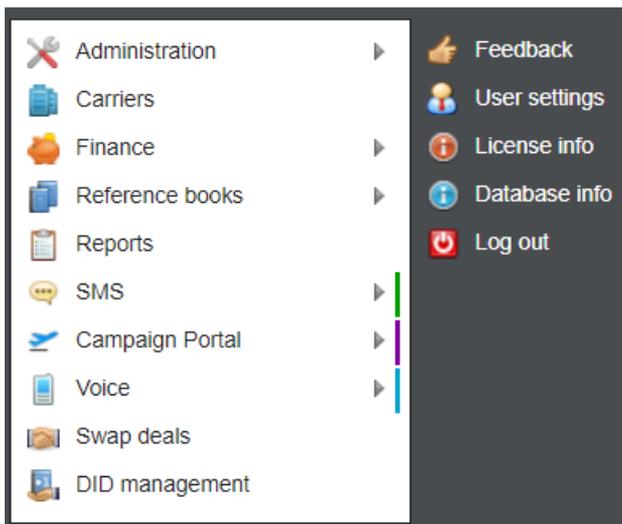
Set of metrics

NOTE: By default the server metrics shown on the *Start* page are collected only from the server with an installed active database. By request, the metrics for all servers configured in the System can be displayed. To enable the feature, contact the Alaris technical support team and communicate the code BZ12388.

The  **Start** button that opens the main System menu and provides access to all System features is located in the bottom left corner of the page. Some of the menu items may be unavailable to certain users depending on their access rights. The access rights are configured on the [Administration\Users](#) ⁹⁷ page.

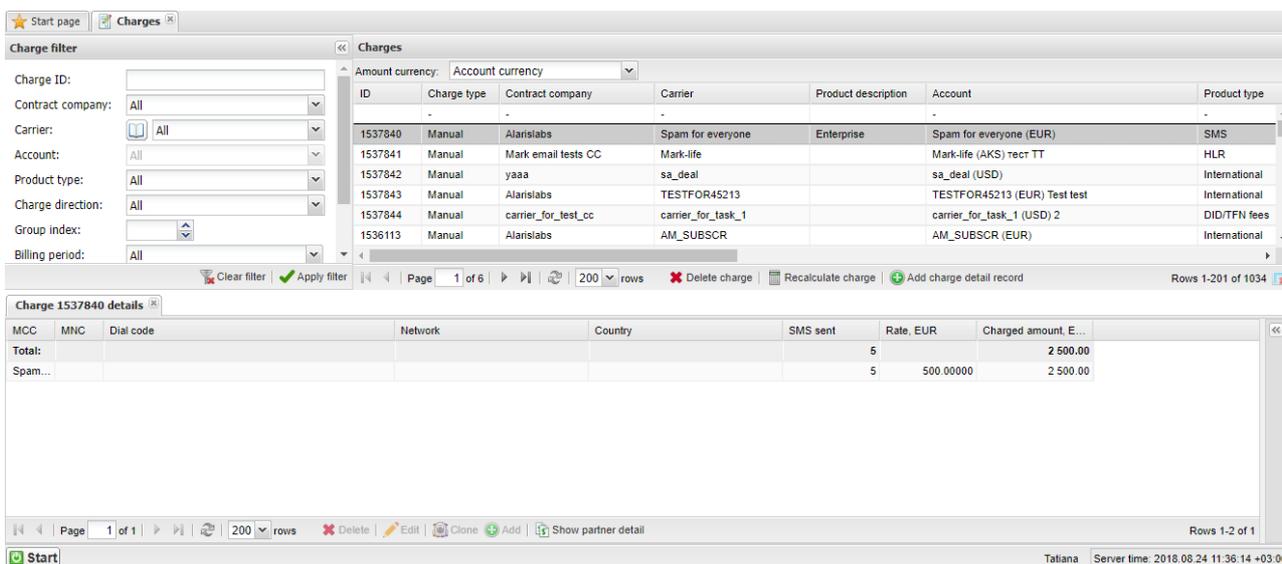
The menu includes the following items:

- Administration
- Carriers
- Finance
- Reference books
- Reports
- SMS
- Campaign Portal
- Swap deals
- DID management



Start menu

A typical page is illustrated below.



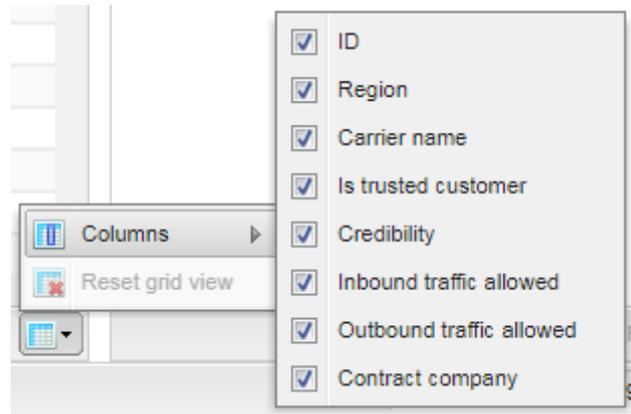
A typical page view (Finance\Charges)

Opened menu items appear as tabs at the top of the page. Drag and drop the tabs to rearrange them as convenient.

As some companies use both the Alaris SMS Platform and Alaris inVoice, for their convenience tabs that refer to the Alaris SMS Platform are marked with a green ribbon (for example ) while those referring to Alaris inVoice (voice traffic) are marked with a blue ribbon, for example . Tabs referring to Alaris Campaign Portal (SMS Platform) are marked with a purple ribbon (for example, ). Additionally, a pop-up tip with the System type (inVoice, SMS Platform or Campaign Portal) appears when pointing the mouse to the tab. Find out more in the [Alaris YouTube video](#).

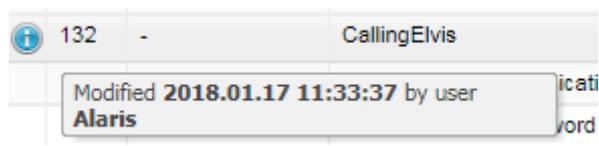
The user can modify the number of rows per page (the  control) and the column order. These settings are saved automatically in the browser's local storage. The bottom right corner of the page shows the user name and server time.

Most pages that show tables (for example, [Carriers](#)^[99], [SMS\Routing\Routing features](#)^[290] and many others) contain the  button that serves to unload the table to MS Excel format. Most tables also contain the  button that serves to customize the current view by selecting columns to be displayed. The figure below illustrates selection of columns for the [Carriers\Carriers](#)^[99] page.



Defining the columns to be displayed

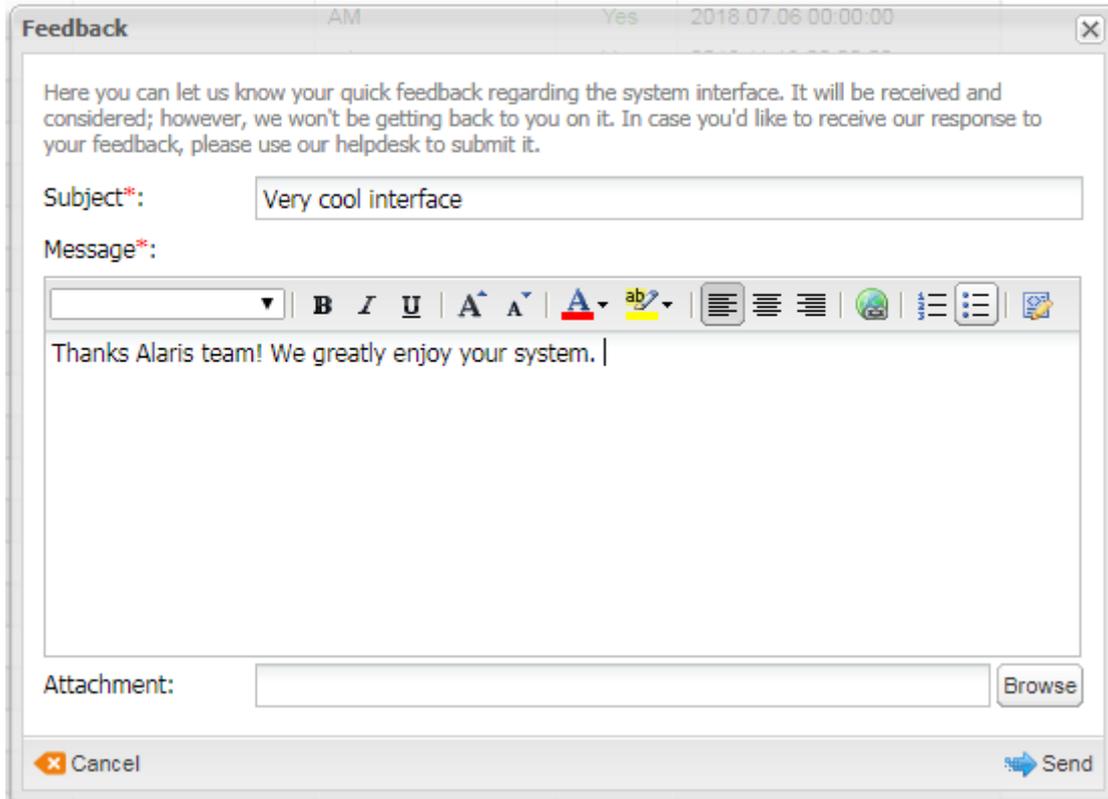
Table records in the [Carriers](#)^[99] and [SMS\Routing\Routing rules](#)^[292] sections contain the  icon. Point the mouse to the icon to view a pop-up window that shows the author and date of the latest modification. Objects that were not modified since creation have the grey icon .



Object modification history

The  **Feedback** menu opens the dialog that allows sending feedback regarding the interface. Use this form to tell us how we can improve the System.

NOTE: This message will not create a ticket on the helpdesk. To receive feedback from the Alaris technical support team, create a ticket.



The screenshot shows a 'Feedback' dialog box with a title bar containing 'AM', 'Yes', and '2018.07.06 00:00:00'. The main text reads: 'Here you can let us know your quick feedback regarding the system interface. It will be received and considered; however, we won't be getting back to you on it. In case you'd like to receive our response to your feedback, please use our helpdesk to submit it.' Below this is a 'Subject*' field with the text 'Very cool interface'. The 'Message*' field contains a rich text editor with the text 'Thanks Alaris team! We greatly enjoy your system.' and a toolbar with various icons. At the bottom, there is an 'Attachment:' field with a 'Browse' button, and 'Cancel' and 'Send' buttons.

Feedback

The  **User settings** dialog allows changing the user password, hiding inactive carriers and changing the color scheme of the interface. When the *Hide* mode is activated, inactive carriers will be hidden in interfaces such as *Carriers*, *Routing Rules*, *Rate editor* and *Simulation*. Tasks for such carriers (for example, in *Simulation* and *Rate import*) will be displayed, but the carrier's name will be replaced with the carrier ID. See also the [Alaris YouTube](#) video.

The *Sign block* allows the user to download a personalized signature in jpg/png formats that can be used in invoice cover letter and invoice detail file templates. For this purpose, the [BillingManagerSignature] marker is used in the templates (for more detail on templates and markers, refer to [Administration\Template manager](#)^[78]).

Account: 2000-01-01 00:00:00

User settings

Color scheme:

Inactive carriers:

Show rows: for each cell in multi value fields

Sign block

Sincerely yours,
Martha CooCoo
CooCoo Communications



Change password

Current password:

New password:

Repeat:

User settings

4 Administration

4.1 Account manager history

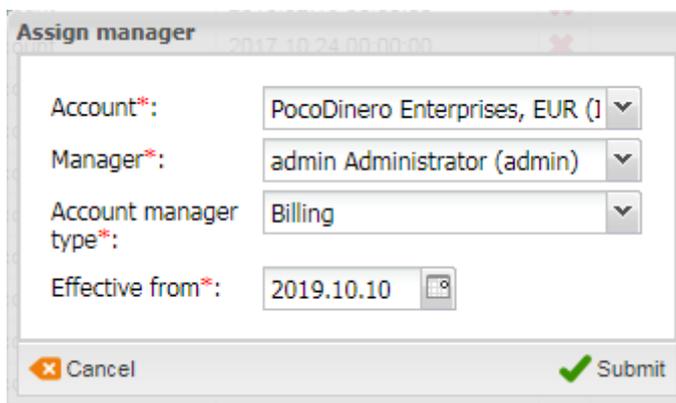
Check out the video tutorial on account manager history at the [Alaris YouTube channel](#).

The *Administration/Account manager history* page serves to view and add the information about account managers. Account managers receive the same alerts and notifications as the carriers they control. Besides, the System owner can configure access rights so that each account manager can see only its own carriers. The page also comes handy in calculating manager bonuses when an account is transferred to another manager. The *Effective from* field shows the date on which the account was assigned to the manager.

Carrier	Account	Manager	Account manager type	Effective from	
All	All	Support Alaris (Alaris)	All	--∞ ≤ X ≤ ∞	
Demo carrier	USD (ID: 11541)	Support Alaris (Alaris)	Account	2015.08.28 00:00:00	✖
Ilya	RUR (ID: 30111), Ilya...	Support Alaris (Alaris)	Account	2019.05.23 00:00:00	✖
Cliente A	USD (ID: 11543)	Support Alaris (Alaris)	Account	2015.09.07 00:00:00	✖
Cliente B	EUR (ID: 11545)	Support Alaris (Alaris)	Account	2015.09.07 00:00:00	✖
Provider 1	USD (ID: 11547)	Support Alaris (Alaris)	Account	2015.09.07 00:00:00	✖
Provider 2	USD (ID: 11548)	Support Alaris (Alaris)	Account	2015.09.07 00:00:00	✖

Account manager history

Use the *Delete* ✖ button in the rightmost column if you wish to delete the record from the table. Use the  button on the bottom toolbar to refresh the table. The  **Assign manager** button opens the same-name window that enables assigning a manager to a partner carrier:



Assign manager

Account*: PocoDinero Enterprises, EUR (I) ▾

Manager*: admin Administrator (admin) ▾

Account manager type*: Billing ▾

Effective from*: 2019.10.10 

 Cancel  Submit

Assign manager

Configure the required parameters. The field *Account manager type* (possible values - *Account* and *Billing*) allows assigning two types of managers to a single account to handle two different processes. For example, the account manager responsible for controlling and monitoring the credit limits and the billing manager that handles payments and invoices.

Click  **Submit** to confirm or  **Cancel** to discard the settings.

NOTE: Users that are assigned as account managers receive browser notifications as well as emails when their clients hit balance or credit limit thresholds. When clicking on such an alert, the Carriers\Accounts page is opened filtered by the respective account ID.

4.2 Custom parameter types

Check out the video tutorial on custom parameter types at the [Alaris YouTube channel](#).

The *Administration\Custom parameter types* page allows creating custom parameters for the tab sheets of the *Carriers* section: *Carriers*, *Users*, *Accounts*, *Agreements*, and *Products*.

The page has two panels. The left panel is a table of configured custom parameters; the right panel contains the *Add* and *Edit* tabs.

ID	Entity	Parameter name	Compiled JSON
	All	Text mask	
1003	Carrier	carrier code	{"xtype":"numberfield","value":"1"}
1002	Account	Tax reference number	{"xtype":"numberfield"}

Custom parameter types

Add
 Edit

Attention: All the changes done through this interface will become visible in Carriers after the tab is reopened.

Entity*:

Parameter name*:

Field parameters

Field type:

Default value:

Required field

Minimum value:

Minimum value:

Field width:

Compiled JSON:

```
{"xtype":"numberfield"}
```

Add tab

To create a parameter, enter the appropriate parameters in the fields detailed below. Fields marked with an asterisk (*) are required.

- *Entity*: select the tab sheet in which the parameter will appear: *Carrier*, *User*, *Account*, *Agreement*, *Product*, *SMS Channel*, *SMS POI*,
- *Parameter name*
- *Field type*. Possible values include:
 - *Text*
 - *Number*

- *Boolean*
 - *Big text*: field for entering multiple lines of text
 - *List of values*
 - *Date*
 - *Date & Time*
- *Default value*:
 - *Required field*: select the checkbox to make the field required
 - *Validating regular expression*: the field appears if the Field type value is Text or Big text. Values entered by the user that do not match the regular expression are rejected
 - *Field width*:
 - *Compiled JSON*: code in the JSON format (is entered automatically, maximum allowed length is 4,000 symbols)

Click  **Submit** to save the changes. The entry will appear in the *Custom parameter types* table.

The new field will appear in the *Add/Edit* panel and the tables of the *Carriers* section once the section is reopened.

4.3 Email processing rules

Check out the video tutorial on email processing rules at the [Alaris YouTube channel](#).

The *Administration\Email processing rules* page serves to configure rules for recognition of incoming emails that contain rate sheet files. The System analyzes the email parameters (address, subject, text, attachment name etc.), identifies it as containing rate sheets and automatically imports the rate sheet file (based on auto rate import rules configured at [SMS\Rates\Auto rate import](#)^[239]).

NOTE: Data in this section is displayed only if the user has the appropriate permissions (*View own accounts only*, *View own contract companies* etc.) Permissions are configured in [Administration\Users](#)^[9]. Find out more about the feature in the [Alaris YouTube video](#).

The page has three tabs: *Email rules*, *Letters* and *Files*. The *Email rules* tab has two panels: the list of rules on the left and the *Add*, *Edit* and *Simulation* tabs on the right. The bottom of the *Email rules* tab contains the  button at the bottom that serves to export the rules table to a MS Excel file.

Email rules				
ID	Mail masks	File name mask	Carrier	
10004	Mail from: *@coocoo.com Mail to: *@al.com Mail subject: *LCR* Mail text: *A-Z*	*rate*	Boring Enterprises	
10005	Mail from: *mo@alarislabs.com* Mail to: *rates@alarislabs.com* Mail subject: *Wholesale*		Ogorodnikov_Test	
10000	Mail from: *@nomoney.com Mail to: *@al.com Mail subject: *Premium* Mail text: *Premium*	*rate*	Barbie Dahl	

Email rules

The Add tab is illustrated below.

+ Add
✎ Edit
🧪 Simulation

Mail from mask*:

Mail to/CC/BCC mask:

Mail subject mask:

Mail text mask:

File name mask:

Interface*:

Run auto import for attachments

Carrier*:

Product*:

Rule description:

Owner notification:

Carrier notification:

Report recipients:

Rule enabled
 Test rule
 Resume processing

Add tab

To create a rule, enter the appropriate parameters in the fields detailed below. Fields marked with an asterisk (*) are required.

- *Mail from mask, Mail to/CC/BCC mask, Mail subject mask, Mail text mask, File name mask:* define a mask (use an asterisk * or the percent symbol % as a wildcard) – at least one of the mask fields must be configured

NOTE: It is possible to use the underscore symbol "_" in the file name if it is preceded by the backslash symbol "\" (that is, the mask with the underscore symbol must contain the combination "_").

- *Interface:* select *SMS rate import* or *Payments* (for auto import of payments)
- *Run auto import for attachment:* select to auto import attached files
- *Carrier*
- *Product*
- *Rule description:* arbitrary comments
- *Owner notification, Carrier notification:* select *Yes* if a copy of the message must be sent to the System owner (account manager)/carrier respectively
- *Report recipients:* supply comma- or semicolon-separated email addresses to which rate sheet import reports will be sent
- *Rule enabled:* select when the tests are complete to activate the rule
- *Test rule:* select when testing the rule to prevent submitting it prematurely. The rule will only operate in the simulation mode

NOTE: Both *Rule enabled* and *Test rule* must be selected to enable simulation.

- *Resume processing:* select to process a single file multiple times and import the same file into several products. If disabled, the System will select all rules that fit the email values and choose the rule with the highest priority to perform auto rate import. If enabled, the next rule that fits will also be used – in this way, auto rate import may be performed multiple times for one email

NOTE: The rule located higher in the list is considered to have higher priority (you can drag and drop rules in the table to adjust rule priorities).

Click  to save the changes. The entry will appear in the *Email rules* table.

To test the rule, select it in the table and open the *Simulation* tab.

Mail from:
 Mail to:
 Mail subject:
 Mail text:
 File name:
 Interface: **SMS rate import**
 Carrier: **PocoDinero Enterprises**
 Product: **Wholesale (undefined) - Vendor**
 Rule description: **Wholesale A-Z rule**

Simulation

Enter the appropriate parameters and click . The rule details will appear on the *Simulation* panel (highlighted in bold in the figure above) and the rule will appear in the *Email rules* table. Once the tests are completed, go to the *Edit* tab and deselect the *Test rule* checkbox to activate the rule.

The *Letters* tab displays emails received by the System (the *Recipient* email address is configured by the Alaris team during System installation).

ID	Delivered	Sender	Subject	Recipient	Source
2 047	2019.02.01 17:32:48	ac@ac11.ru	test3	vasia.loh@inbox.ru	download
2 045	2019.02.01 17:31:38	ac@ac11.ru	Test2	vasia.loh@inbox.ru	download
2 046	2019.02.01 17:30:21	ac@ac11.ru	Rate Update	vasia.loh@inbox.ru	download
2 044	2019.02.01 17:29:44	ac@ac11.ru	test	vasia.loh@inbox.ru	download
2 048	2019.02.01 16:48:32	ac@ac11.ru	Rate Update	vasia.loh@inbox.ru	download
2 043	2019.02.01 16:38:14	ac@ac11.ru	Auto Import	vasia.loh@inbox.ru	download
2 049	2019.02.01 16:36:35	ac@ac11.ru	Rate Update	vasia.loh@inbox.ru	download

Sender: **ac@ac11.ru**
 Subject: **Test2**
 Recipient: **vasia.loh@inbox.ru**
 Carbon copy:
 Blind carbon copy:
 Attachments: **rate_wholesale.csv**

Dear Partner,

See attached rate update from Deel.

Current notification DOES NOT COMPLETELY REPLACE all the rates you had before.
All codes and rates, which are not indicated in this price list remain the same.

Prefix is 11#

Please confirm the receipt.

Letters tab

The top part of the tab is a table of emails. Values in the *Sender* column are links. A click on the link opens an email client, which allows easily sending a reply. The *Source* column contains a link that serves to download the email.

The bottom area is divided into two sections - the left section shows the email properties and the right displays the email text.

NOTE: The maximum length of the *Carbon copy* and *Blind carbon copy* fields is 4,000 symbols. If the fields are longer than allowed, during email import they will be trimmed to the last complete address.

The *Files* tab shows all imported rate sheet files (for both automatic and manual import).

Select file					Message text
Interface	Carrier	Product	File name	Date	
<input type="checkbox"/>	SMS rate imp	All			
<input type="checkbox"/>	SMS rate import	Ancient Communications	Gold (EUR) - Client	test.xls	2019.0
<input type="checkbox"/>	SMS rate import	Amber Telecom - Gem	LCR (USD) - Client	test.xlsx	2019.0
<input type="checkbox"/>	SMS rate import	ALARIS TEST	LCR (USD) - Client	SMS_sample.xls	2019.0
<input checked="" type="checkbox"/>	SMS rate import	Belgian White Ltd.	Premium (USD) - Vendor	SMS_sample.xls	2018.1
<input type="checkbox"/>	SMS rate import	AC_Vendor	SMS | CP 1 (USD) - Vendor	Sender_id_rate.xlsx	2018.1
<input type="checkbox"/>	SMS rate import	AC_Client	SMS Type (USD) - Client	Sender_id_rate.xlsx	2018.1
<input type="checkbox"/>	SMS rate import	PocoDinero Enterprises	Premium SMS (EUR) - Vendor	Rate_import.xls	2018.1
<input type="checkbox"/>	SMS rate import	PocoDinero Enterprises	Premium (USD) - Client	SMS_Ratesheet1.xls	2018.1
<input type="checkbox"/>	SMS rate import	Brexit Telecom	Premium (EUR) - Vendor	SMS_sample.xls	2018.0
<input type="checkbox"/>	SMS rate import	Boring Enterprises	Retail (USD) - Vendor	SMS_sample.xls	2018.0
<input type="checkbox"/>	SMS rate import	Alice Wondersystems	Premium (EUR) - Vendor	rate_import_vendor_price_list_premium.xls	2018.0
<input type="checkbox"/>	SMS rate import	ALARIS TEST	Premium SMS (USD) - Client	test_import.xlsx	2018.0
<input type="checkbox"/>	SMS rate import	Kacey-vendor silver	Enterprise (EUR) - Vendor	Price list.xlsx	2018.0
<input type="checkbox"/>	SMS rate import	Brexit Telecom	Premium (EUR) - Vendor	SMS_sample.xls	2018.0

Message text: Dear Partner, See attached rate update from Deel. Current notification DOES NOT COMPLETELY REPLACE all the rates you had before. All codes and rates, which are not indicated in this price list remain the same. Prefix is 11# Please confirm the receipt. --

Files page

The tab is divided into two panels. The left panel is the list of files. Click on the link in the *File name* column to open the rate sheet file. The *User name* column shows the name of the System owner's user who performed manual file import. The right panel shows the text of the email for the selected record

(can be toggled by clicking the  button at the top right). The bottom of the tab contains the following controls:

-  **Delete** - removes the selected file from the *Files* tab and the interface to which it was imported. Additionally, if the file was imported automatically, it is removed from the *Letters* tab as well.
- Send to** - serves to select the interface to which the file belongs. When the user changes the interface, the file is removed from the previously selected interface and appears in the newly selected one (for example, when changing *SMS rate import* to *No interface*, the file is removed from the *SMS rate import* interface. Similarly, when changing the value from *No interface* to *SMS rate import*, the file appears in the *SMS rate import* interface.
-  **Find processing rule** (available only for files that were received by email) - serves to find suitable email processing rule. If no rule is found, an error message appears. If a rule is found, its description/ID is displayed and the user is prompted to apply it. When applied, the file is processed as if it was received by email based on an email processing rule (the interface, partner and product are defined)

4.4 Outgoing email accounts

Check out the video tutorial on outgoing email accounts at the [Alaris YouTube channel](#).

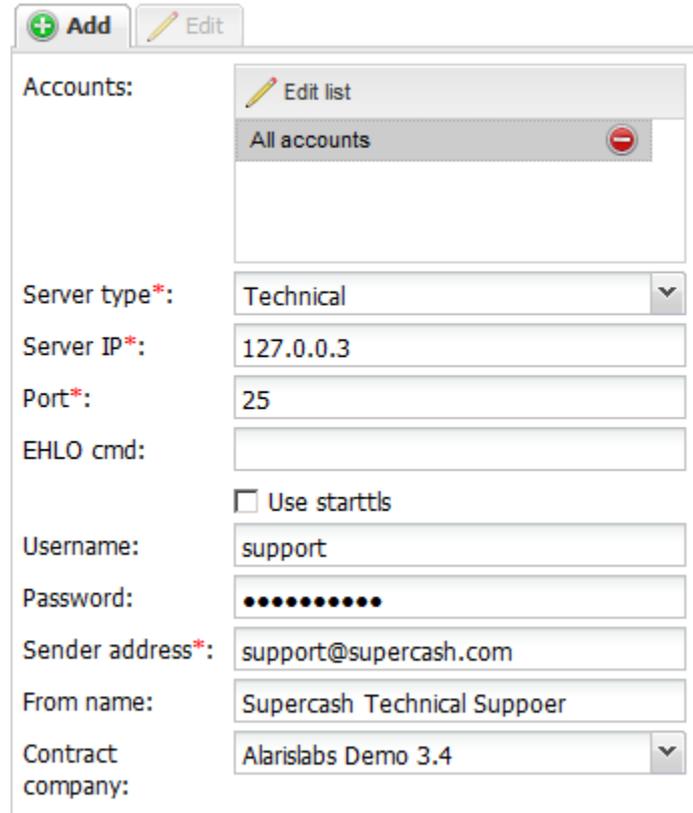
The *Administration\Outgoing Email accounts* page serves to configure accounts on behalf of which the System owner sends emails to its partners. For example, it is possible to configure sending technical and commercial emails from separate accounts.

The page has two panels. The left panel is a table of configured accounts; the right panel contains the *Add* and *Edit* tabs.

ID	Server type	Accounts	Server IP	Port	EHLO cmd	Secure conn. type	Username	Sender address
10025	Default		smail.alarislabs.com	901	ehlo smail.alarislabs.com	TLS	frw	sa@alarislabs.com
10022	Default		smail.alarislabs.com	901	ehlo smail.alarislabs.com	TLS	frw	all+defaultTLS@ac11.ru

Outgoing email accounts table

The Add tab is illustrated below.



The screenshot shows the 'Add' tab of the outgoing email accounts configuration. It includes an 'Accounts' list with an 'Edit list' button and a red minus sign. Below the list are several input fields: 'Server type*' (dropdown menu set to 'Technical'), 'Server IP*' (text box with '127.0.0.3'), 'Port*' (text box with '25'), 'EHLO cmd' (text box), 'Use starttls' (checkbox), 'Username' (text box with 'support'), 'Password' (password field with dots), 'Sender address*' (text box with 'support@supercash.com'), 'From name' (text box with 'Supercash Technical Suppoer'), and 'Contract company' (dropdown menu with 'Alarislabs Demo 3.4').

Add tab

To create an email account, enter the appropriate parameters in the fields detailed below. Fields marked with an asterisk (*) are required.

- *Accounts*: click  to add partners that will receive emails from this account
- *Server type*: select the type of messages that will be sent from this address:
 - *Default*: all kinds of e-mails
 - *Billing*: invoices, balance and credit alarms
 - *Rates*: rate updates and notifications on auto import and file receipt
 - *Technical*: technical alerts (generated at [Administration\Service notifications](#)^[32])
 - *Reports*: reports generated by the *Report builder*
 - *Partner portal*: messages related to the [Alaris Campaign Portal](#)^[380] and [Wholesale portal](#)^[372]
 - *Service notifications*: sending service notifications (find out more in [Alaris YouTube video](#))
- *Server IP, Port*: mail server parameters

- *EHLO cmd*: EHLO value (see SMTP standard description rfc 5321)
- *Secure conn type*: select the encryption type (*No encryption, TLS, SSL*)
- *Username, Password, Sender address, From name*: specify the mail account details
- *Reply to*:
- *Contract company*

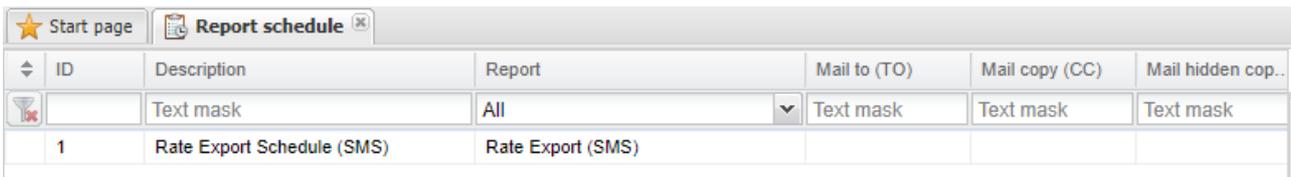
Click  to save the changes. The entry will appear in the *Outgoing email accounts* table. To check if the account configurations are correct, click  at the bottom of the page. The System will try to connect to the mail server. The result will appear in a dialog box.

4.5 Report schedule

Check out the video tutorial on the report schedule at the [Alaris YouTube channel](#).

The *Administration\Report schedule* page allows generation of a schedule for reports that are sent to a multitude of recipients. The reports are based on one and the same template and schedule, but the report data is personalized for each recipient.

The page has two panels. The left panel is a table of configured schedules; the right panel has the *Add* and *Edit* tabs.



ID	Description	Report	Mail to (TO)	Mail copy (CC)	Mail hidden cop..
1	Rate Export Schedule (SMS)	Rate Export (SMS)			

Table of configured schedules

Suppose the user needs to generate and send a report on rates to recipients on the 1st of every month at 8:00.

Add
 Edit

Description*:

Report*:

SQL code:

```

9      a.acc_car_id,
10     'not@alarislabs.com' /*agr_default_rate_ch
11     from bas_agreement g
12     inner join bas_account a on (g.agr_acc_id = a
13     where g.agr_start_date <= sysdate
14           and g.agr_end_date > sysdate
15     )
16     on (acc_car_id = car_id)
17     where "p$mailto" is not null
18           and product_type = 3
19           and product_direction = 0 order by p.car_id
                
```

Schedule:

Enable schedule

Cron format:

Explain:

**Run at 00 minute;
at 08 Hour;
at 01 Day;
at January, February, March, April, May, June, July, August,
September, October, November, December.**

Minutes:

00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59

Hours:

00	01	02	03	04	05	06	07	08	09	10	11
12	13	14	15	16	17	18	19	20	21	22	23

Days of month:

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31									

Months:

Ja	Fe	Mr	Ap	Ma	Jn	Jl	Au	Se	Oc	No	De
----	----	----	----	----	----	----	----	----	----	----	----

Add tab

To create a schedule, enter the appropriate parameters in the fields detailed below. Fields marked with an asterisk (*) are required.

- *Description:* name of the schedule
- *Report:* select the appropriate report from the list

- *SQL code*: SQL query that will return a table of the report parameters for each recipient

NOTE: The query must contain all the binds used in the report (their bind names should be used as column names) and it may contain additional execution parameters such as mail addresses and export type. For assistance with the SQL code, contact the Alaris technical support team.

- *Schedule*: select the checkbox to configure the report schedule. It can be set in the cron format or using the standard controls. For example, the figure above illustrates a report that is generated at 8-00 on the first day of every month

Mail to (TO):

Mail copy (CC):

Mail hidden copy (BCC):

Attached file type:

Add tab (continued)

- *Mail to (TO), Mail copy (CC), Mail hidden copy (BCC)*: specify the email addresses to which all the reports will be sent
- *Attached file type*

Click to save the changes. The entry will appear in the table of configured schedules.

Description*:

Report*:

Contract company:

SQL code:

```

1 select
2     p.product_id as "p_product_id|n",
3     to_char(sysdate, 'yyyy.mm.dd hh24:mi:ss'
4     "p$mailto"
5     from bas_product_v p
6     left join
7     (
8     select distinct
9     a.acc_car_id,
10    'not@alarislabs.com' /*agr_default_rat
11    from bas agreement e
12
```

Schedule: Enable schedule

Report fields:

Field type	Name	Bind name
All SMS products	Product	p_product_id
Date	Actual date	p_act_date

Edit tab

The *Edit* tab additionally contains the following elements and controls:

- *Report fields*: the table shows the binds that are used in the report. This table serves as reference that helps the user create the SQL code.

-  **Test report** : serves to verify the SQL code as well as its consistency with the report.

Schedule configuration example

Suppose the user needs to export currently active rates and send them to carriers at 8:00 on the 1st of every month, each carrier receiving rates pertaining to them. Proceed as follows:

- In the *Report* field, select *Rate Export (SMS)*
- In the *SQL code* field, enter the following code:

```
select
    p.product_id as "p_product_id|n",
    to_char(sysdate, 'yyyy.mm.dd hh24:mi:ss') as "p_act_date|d",
    "p$mailto"
from bas_product_v p
left join
(
    select distinct
        a.acc_car_id,
        'not@alarislabs.com' /*agr_default_rate_change_email*/ as "p$mailto"
    from bas_agreement g
    inner join bas_account a on (g.agr_acc_id = a.acc_id)
    where g.agr_start_date <= sysdate
        and g.agr_end_date > sysdate
)
on (acc_car_id = car_id)
where "p$mailto" is not null
    and product_type = 3
    and product_direction = 0 order by p.car_id
```

- Select the *Enable schedule* checkbox and set the schedule to 8:00 on the 1st of every month as illustrated above.
- Configure the email fields as appropriate
- Click  **Submit** to save the changes

At 8:00 on the 1st day of the next month the SQL query will be executed and will return a table in the following format:

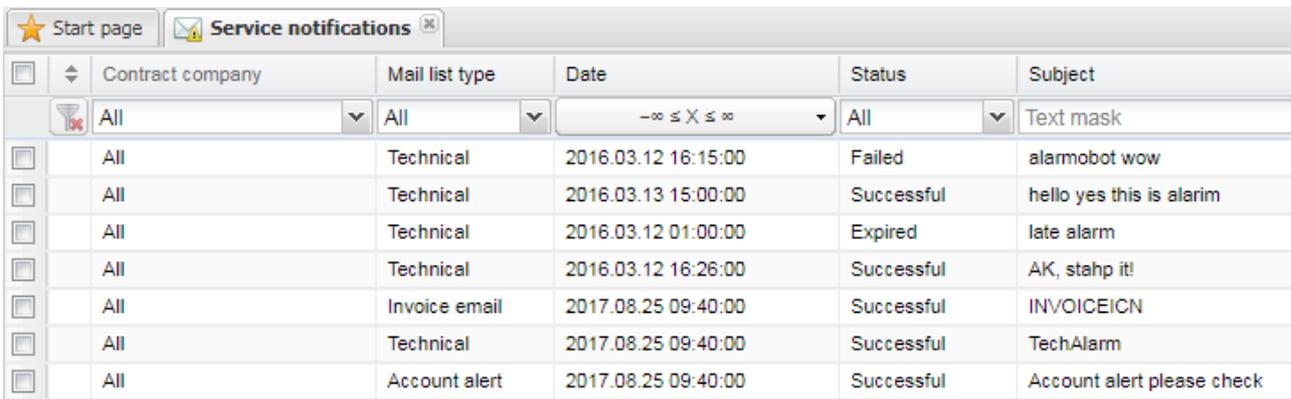
MAILTO	P_PRODUCT_ID	P_DIALCODE
info@abc.com	2311	*
info@ddde.net	2312	*

The report on active rates (*Rate Export (SMS)*) will be then generated and emailed to all recipients in the MAILTO column, with the parameters set in the P_PRODUCT_ID and P_DIALCODE columns. A copy of all emails will be sent to the addresses specified in the fields *Mail to (TO)*, *Mail copy (CC)* and *Mail hidden copy (BCC)*.

4.6 Service notifications

The *Administration\Service notifications* page serves to generate and schedule emails to partners about maintenance operations. The emails are sent to the addresses specified in [Carriers\Agreements](#) (the *Default technical emails* parameter).

The page has two panels. The left panel is a table of scheduled notifications; the right panel contains the *Add* and *Edit* tabs.



<input type="checkbox"/>	Contract company	Mail list type	Date	Status	Subject
<input type="checkbox"/>	All	All	--∞ ≤ X ≤ ∞	All	Text mask
<input type="checkbox"/>	All	Technical	2016.03.12 16:15:00	Failed	alarmobot wow
<input type="checkbox"/>	All	Technical	2016.03.13 15:00:00	Successful	hello yes this is alarim
<input type="checkbox"/>	All	Technical	2016.03.12 01:00:00	Expired	late alarm
<input type="checkbox"/>	All	Technical	2016.03.12 16:26:00	Successful	AK, stahp it!
<input type="checkbox"/>	All	Invoice email	2017.08.25 09:40:00	Successful	INVOICEICN
<input type="checkbox"/>	All	Technical	2017.08.25 09:40:00	Successful	TechAlarm
<input type="checkbox"/>	All	Account alert	2017.08.25 09:40:00	Successful	Account alert please check

Service notifications table

The *Add* tab is illustrated below.

+ Add
 ✎ Edit

Contract company*:

Mail list type*:

Outgoing mail server:

Date*:

Subject*:

Text*:

B I U A A A ab

Dear Partner,
 Update procedures are scheduled on 20 October from 1 till 3 am.

Sincerely,
 The ACQ support team

Attachment:

Add tab

The Add tab contains the following parameters:

- *Contract company*
- *Mail list type*: type of communication. The following values are available:
 - *Technical*
 - *Account alert*
 - *Rate change notification*
 - *Invoice email*
- *Outgoing mail server*: mail server configured in [Administration\Outgoing email accounts](#)^[26]
- *Date*: the date and time of the email dispatch to partners
- *Subject, Text*: the subject and text of the message
- *Attachment*: click to upload a file

Click to to save the changes.

4.7 System jobs

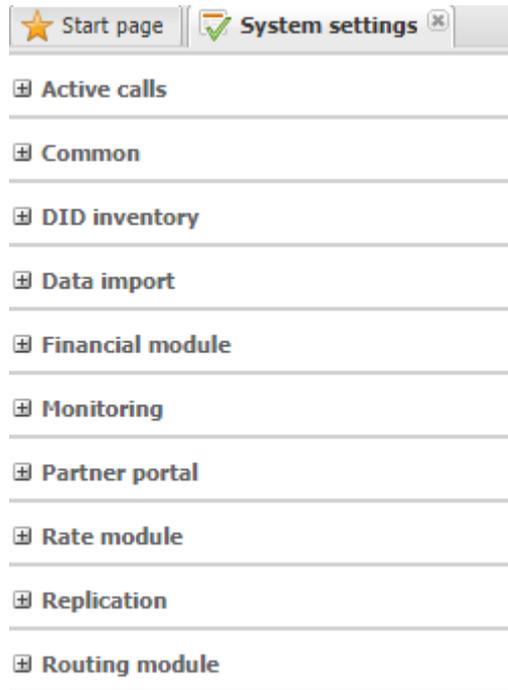
The *Administration\System jobs* page contains general information about standard processes running in the database. The page is intended for the Alaris support team.

Job name	Comments	Repeat interval	State	Last start date
 BAS_APPLY_PENDING_DC_JOB	This job applies pending dial codes	freq=hourly;byminute=0;bysecond=1	SCHEDULED	2019.08.22 10:00:0...
 BAS_CHECK_EXPIRE_PASSWORD	This procedure check expire password for user account.	freq=daily;byhour=0;byminute=10	SCHEDULED	2019.08.22 00:10:4...
 BAS_CUR_UPDATE	This job updates currency rates	freq=hourly;byminute=1;bysecond=0	SCHEDULED	2019.08.22 10:01:0...
 BAS_ETC_REF_SCO_CARR	This procedure refresh scoring carriers	freq=hourly;byminute=1;bysecond=0	SCHEDULED	2019.08.22 10:01:0...
 BAS_IMP_DISP	Auto import job dispatcher	freq= minutely;bysecond=50	SCHEDULED	2019.08.22 10:10:5...
 BAS_SEND_NOTIFICATIONS	This job sends scheduled notifications	freq=hourly;byminute=0,10,20,30,40...	SCHEDULED	2019.08.22 10:10:4...
 BAS_WIPE_PERSONAL_DATA	This job wipes personal data by EU GDPR law	freq=daily;byhour=2;byminute=30	SCHEDULED	2019.08.22 02:30:4...
 DOC_SEND_MESSAGES	This send email messages to users	freq=hourly;byminute=1;bysecond=20	SCHEDULED	2019.08.22 10:01:2...
 FIN_CHECK_CREDIT_USAGE	This procedure checks credit limit usage and send appropriate alerts	freq=hourly;byminute=1,6,11,16,21,2...	SCHEDULED	2019.08.22 10:11:0...
 FIN_HOURLY_ROUTINES	This job performs financial hourly routines	freq=hourly;byminute=25;bysecond=0	SCHEDULED	2019.08.22 09:25:0...

System jobs

4.8 System settings

The *Administration\System settings* menu allows administration of all the main System parameters. Most of them can only be configured by the Alaris support team and must not be edited by the user to prevent the System breakdown. The sections below describe the parameters that can be configured by the System owner.



The screenshot shows a web interface for 'System settings'. At the top, there are two tabs: 'Start page' (with a star icon) and 'System settings' (with a checkmark icon and a close button). Below the tabs is a list of expandable menu items, each with a plus sign icon:

- Active calls
- Common
- DID inventory
- Data import
- Financial module
- Monitoring
- Partner portal
- Rate module
- Replication
- Routing module

System settings

The bottom of the page contains the filter that allows searching for any parameter in the *System settings*.

Parameter: 

Filter

4.8.1 Common

Common

Active event list	PRV_TASK_OBJECT,BAS_ACCOUNT,R...
Add report info to file header (0 - no, 1 - yes). By default - 1	1
Allowed ORA error codes for report execution	ORA-08103
Allowed time-zone fraction types (times 15, 30 or 60 minu...	60
Automatic notification expiry period (hours)	3
Balance notifier url pattern	null

Common settings

- *Add report info to file header (0 - no, 1 - yes). By default - 1:* if set to 0, export results (in any format) will not contain the report header (report name + parameters with which the report was launched)
- *Allowed ORA error codes for report execution:* serves to indicate a list of errors that trigger the System to resend a report. For example, *ORA-08103,ORA-06512*. If set to *ORA*, all ORA errors will result in report resending. If generation of a scheduled report is interrupted with an error set in this parameter for four times in a row (note that the value cannot be changed), the *Is recurrent (Reports interface)* checkbox or *Enable schedule* checkbox ([Administration\Report schedule](#) ^[28] interface) is disabled. The interval in which a report is be re-sent is set in the parameter *Period between report execution attempts in case of ORA errors (in min.)*. Note that reports saved under the *Default* preset will not be re-sent even if the respective error is specified in the parameter. Also the parameter affects *Export to Excel/Export to CSV* buttons - if a report cannot be generated and exported, the task will automatically restart. See also the [Alaris YouTube video](#)
- *Allowed time-zone fraction types (times 15, 30 or 60 minutes):* used in cases when partners have time zones with irregular time offsets. For example, to include the Iran timezone (UTC + 3.5) set this parameter to 30, so that the statistics and invoicing are calculated correctly. Note that the parameter change will affect only new data - to apply it to the old data recalculation of financial cubes is required (performed by the Alaris technical support team).

NOTE: The parameter only impacts statistics used for invoice generation and the invoice timezone.

- *Automatic notification expiry period (hours):* fractional values are allowed; in case tasks created in service notifications interface have date of schedule earlier than current time - the parameter value, they will be considered expired and will not be sent. for example, if the current date and time is 01/01/2019 10:40 and the parameter is set to 3.5, all notifications created with date earlier than 01/01/2019 07:10 will have status: *expired* (once the system job *bas_send_notifications* is executed), otherwise the status will be *scheduled*
- *Balance notifier url pattern:* the link the System uses to send balance check notifications, for example: https://some_url?acc_id=%acc_id%&dcheck=%dcheck%&amount=%amount%, where:
 - *some_url* is a URL to the external service
 - *acc_id* - account ID
 - *dcheck* - time of balance change
 - *amount* - balance amount
- *Block traffic exceeding license (1 - yes, 0 - no):* if the value is *1*, the System blocks traffic when the monthly licensed volume is exceeded. The parameter can be changed only by the Alaris technical support team

- *Build number*: the current version number with the software revision number
- *Critical threshold for running processes per core*: number of processes per core which is considered critical for System operation. The default value is 2. If the user tries to launch a new task while the current load is greater than the parameter value, a warning appears (*System overload detected. Running resource-consuming tasks is prohibited until the load average is lower*), and the task is canceled. Note that only tasks created by users are taken into account (EDR recalculation, export of EDRs - from the Wholesale portal, Analytics and EDR export interfaces, export of rates and their generation, report sending and export)
- *Currency update source (possible values - ECB, LCB, BNR, NBU, NBRB, null - disabled)* - the bank that provides the currency update. Possible values are:
 - ECB - [European Central Bank](#)
 - LCB - [Lithuania Central Bank](#)
 - BNR - [National Bank of Romania](#)
 - NBU - [National Bank of Ukraine](#)
 - NBRB - [National Bank of the Republic of Belarus](#)
- *Current user ID*: ID of the user logged in the System
- *Current user ID*: ID of the user logged in the System
- *Current user login name*: login of the user logged in the System
- *Database connection TNS alias (for dgmgrl)*: TNS alias for dgmgrl (Oracle Dataguard manager) in order to show the database info in Start\Database info
- *Default CSV delimiter*: allows setting a System-wide delimiter used in CSV files. Possible values are: semicolon, comma, comma with a space after it, pipe (';', ',', '|'). Applicable to the wholesale portal as well. (Learn more in the [Alaris YouTube video](#))
- *Default document handler* (supported values: *embedded_apach_poi*, *docprocessor*): type of MS Excel exporter. Normally, *embedded_apach_poi* is used (the export result will have an extension specified in the *Default spreadsheet extension* parameter). In case of any problems with export, use *docprocessor*

NOTE: The setting is applied only to export operations for which no regular template can be assigned ([Administration\Template manager](#)^[73]) - for example, reports and EDR export.

- *Default format: date*: default Oracle date format used for replacement of invoice date markers (for example [InvoicePeriod], [InvoiceSysPeriod]) and other date markers (where no time is specified) in template letters - for example, [ExpireDate] for *Password expire letter*
- *Default format: date (document export, Java)*: default Java date format to be used in export results in MS Excel format
- *Default format: date (period)*: default date format (without specific time) for periods used in the financial module (for example, for specification of invoice start/end dates)
- *Default format: date (period) in words*: default date format for periods used in the financial module (for example, for markers [InvoicePeriodInWords], [InvoiceSysPeriodInWords] etc)
- *Default format: date NLS*: default date NLS (national support language) format

- *Default format: date in words*: default date format for periods used in the financial module (for example, for markers [InvoiceDueDateInWords], [InvoiceRegDateInWords] etc)
- *Default format: datetime*: default Oracle date time format used for replacing markers (for example, [IssueDate] for SMS rate export or [CurrentDate] for balance/credit alarms)
- *Default format: datetime (document export, Java)*: default Java date time format to be used in export results in MS Excel format
- *Default format: datetime (period)*: default date format (with time) for periods used in the financial module (for example, for specification of invoice start/end dates)
- *Default format: datetime (period) in words*: default date format (with time) for periods used in the financial module (for example, for markers [InvoicePeriodInWords], [InvoiceSysPeriodInWords] etc)
- *Default format: datetime in words*: default date format (with time) for periods used in the financial module (for example, for markers [InvoiceDueDateInWords], [InvoiceRegDateInWords] etc)
- *Default format: numeric (fractional)*: default format for fractional numbers to show traffic volume (in minutes) in invoice files
- *Default format: numeric (integer)*: default format for integer numbers to show the number of messages in invoice files
- *Default format: numeric (monetary)*: default monetary format to show the invoice amount in invoice files
- *Default format: numeric (NLS)*: default numeric NLS format which is used for invoice markers to show the invoice amount/balance
- *Default parallelism degree for heavy queries*: level of parallelism (integer number of simultaneously executed tasks) for EDR export. In case of low server capacity the recommended value is 1. The parameter also regulates performance of the DID management interface load and can come handy when the interface contains a lot of data
- *Default spreadsheet extension* (supported values: *xls*, *xlsx*): the default format of all exported spreadsheets
- *Default System language*: default System language for new users (can be changed in the login window next to the *Enter* button).
- *Download directory*: directory (default value is `/var/www/html/invoice/files/`) to which the database exports generated files (invoices, simulation logs, export tasks, rates). The parameter can be edited by the Alaris technical support team. Note that the web file server hostname is defined in the *Web-server hostname/IP* parameter
- *Email limit per minute (null - unlimited)*: number of emails that can be sent within a minute. The parameter is intended to limit the email flow in order not to overload the mail server. Note that the threshold value is not global and the transaction speed is calculated for each mail server separately
- *Enable NANP jurisdiction features (0 - no, 1 - yes)*: toggles on/off the NANP (North American Numbering Plan) jurisdiction layers in the *Analytics* interface (once the setting is changed, relogin is required)
- *Enable SNMP metrics gathering (0 - disable, 1 - enable)*: enabled by default (value 1). When enabled, server metrics are collected to display the *CPU usage*, *RAM usage* and *Running CPU per core* charts on the *Start* page.

- *Enable extra secure mode (1 - enable, 0 - disable):* serves to enhance the security policy when resetting the user password in the following interfaces:
 - Main System interface when clicking the *Forgot password?* button
 - Alaris Campaign Portal interface when clicking the *Forgot password?* button
 - Wholesale portal interface when clicking the *Forgot password?* button
 - REST API method used to reset the password

If the parameter is disabled, and the System fails to find the user by its name or email, the following error message will appear: "User with such email or name not found". If the parameter is enabled, the user will not be able to see full details of an error (of the type "ORA-"). Instead, a general error will be displayed, with the following description: "Internal error. Please contact the System administrator."

Additionally, when the parameter is enabled, the menu item *Start\Database info* is hidden, and escaping of special characters is performed (for example, of the symbol "-" for negative figures) to prevent CSV injections during data export.

- *Enable full trace for REST API requests (0 - no, 1 - yes):* if set to 1, tracing for REST API requests is enabled. The requests are written to `/var/log/invoice/restman.log` that is located on the web file server. Note that enabling of the setting may lead to increased disk space consumption
- *Enable overall email delivery in the System (1 - enable, 0 - disable):* defines whether the System will send emails (such as invoices, notifications, alarms etc.)
- *Enable synchronization to redis DB (1 - enable, 0 - disable):* defines whether Alaris Campaign Portal module is synchronized with the database. The recommended value is 1. If set to 0, the module will not receive updates - for example, if a client buys a pack, it will not be possible to send messages using it
- *Excel column width settings:* the width of columns in spreadsheets exported to MS Excel. Possible values are: *WT* - width from template ([Administration\Template manager](#)), *E* - external - width as set in the column settings of the original table in the System, *I* - internal - use the intrinsic width limit (present in invoices and traffic details)
- *First day of the week (0 - Sunday, 1 - Monday):* defines the day on which the week starts. This parameter works only for the calendar and does not affect invoices
- *Font applied to excel files (0 - internal default, 1 - default file formatting):* defines what font to use in MS Excel files generated by the System. Select 0 to use the default System font or 1 to use the font configured in appropriate templates (the System takes the font of the top first cell of the document)
- *Invoice detail Excel password (not used if empty):* if any value is set, MS Excel files with invoice details will be password-protected and can be edited only when the password set in the field is provided. If the parameter is left empty (null), invoice detail files will remain editable. See also the [Alaris YouTube video](#)
- *Left authorization attempts count:* the maximum number of authorization attempts with a temporary password (also see the parameter *Temporary password logins allowed* below)
- *License expiry date:* date and time when the license becomes obsolete (the main web interface will not be accessible). To prolong it, contact the account manager
- *License expiry date (System):* the date of the last check of the license validity

- *Licensed number of sms messages per month*: allowed number of messages within one month. If the value is reached, an alert is sent to the account manager
- *Licensed number of swap deals*: allowed number of swap deals. Once exceeded, swap deals cannot be created. To increase the value, contact the account manager
- *List of forbidden characters for names*: list of characters that are not allowed in the main System web interface, Wholesale portal and Campaign Portal in the fields *Company name* ([Carriers](#) ^[99] interface), *First name*, *Middle name*, *Last name* and *Position* (the [Administration\Users](#) ^[97] interface). The default value is <>V'''
- *Log store period, days*: the period to store the logs of different components (*Carriers*, *Products* and routing rules).

NOTE: The logs contain details of every change in System tables as well as the author of the changes. This allows investigating any incident (System breakdown, errors, malicious attacks etc.). However, logs take disk space and impact the DB size. Therefore, prior to modifying this parameter consult the Alaris support team

- *Login link*: link to login to the main web interface
- *Logins of users to be protected*: list of user logins (comma-separated) which cannot be modified or deleted from the System. In case of attempt of change\removal such users, a warning appears. Note that if someone tries to delete a carrier under which the protected user has been created with the help of the *Delete this carrier and all child components* button (*Carriers* interface), the warning message will be shown as well
- *Max duration of report tasks (min)*: maximum duration of the report execution process. If the value is exceeded, the task is aborted. The default value is 60
- *Max numbers of rows to export in CSV/Excel (null - without limit)*: number of rows exported into a file. When the limit is met, export is halted with a respective error. The default value is 500000
- *Max unzipped file for recurrent reports (mb)*: maximum file size (in megabytes) of a recurrent report. Once the value is reached, the report is archived (in zip format)
- *Maximum allowed System job duration, hours*: maximum allowed System job duration in hours. If a task is being executed longer than specified, it will be aborted. The default value is 24
- *Maximum record count in REST API responses*: maximum record count (integer) which can be returned in REST API responses (note that the limit for EDR export from the Wholesale portal and Alaris Campaign Portal can be set in the *EDR export record count limit* parameter). The default value is 10000. Note that an increase of the value may affect the System performance since generated files take space on the server
- *Maximum search time for regexp in string*: maximum time in seconds which is spent to compile the inserted regular expression in the *Translation rules* interface ([SMS\Routing\Translation rules](#) ^[328]) in the following fields: *Sender ID pattern*, *Dest. number pattern*, *Text pattern*. The parameter is intended to find out whether the regular expression may affect operation of the routing module. If the time is exceeded, a warning will be given to the user. The default value is 20 seconds. To change the value, contact the Alaris technical support team
- *Min percent of free space in tablespaces*: the minimum percent of free space in tablespaces. Once reached, new datafiles are added to tablespaces automatically.

NOTE: The threshold set in the System parameter *Minimum amount of free space in tablespace, megabytes* must be met as well for the file to be added.

- *Minimum amount of free space in tablespace, megabytes*: the minimum percent of free space in tablespaces. Once reached, new datafiles are added to tablespaces automatically. Note that the threshold set in the System parameter *Min percent of free space in tablespaces* must be met as well for the file to be added
- *Password expiry date*: password expiry date of the current user (can be also checked in [Administration\Users](#) >> Expiry date)
- *Period between report execution attempts in case of ORA errors (in min.)*: serves to set the timeout between report run and send attempts after receiving an error specified in the parameter *Allowed ORA error codes for report execution*. Note that the time is increased exponentially - for example, if set to 3, an attempt to resend the report will occur in 3 (3¹), 9 (3²), 27 (3³) minutes (in case every previous attempt fails)
- *Rate change log, days*: storage period for the rate change logs in the System
- *Rate import analysis keep period, days*: number of days (integer) during which the results of analysis (rate import tasks launched in *Mode: Analysis*) are stored in the System (available tasks can be checked on the bottom grid of the *Rate import* interface by clicking on the *view* hyperlink). The default value is 7. Tasks created older than 7 days from the current date cannot be reviewed. If the parameter is set to 0, it will be possible to check only one last task (once a new one is created all other tasks will become unavailable)
- *Rate import analysis user decision timeout, minutes*: timeout in minutes, the default value is 60. In case a user imported rates in the *Choice* mode and has not confirmed the changes, the task will be in the *waiting* state within the set value. Once the value is reached, the task will be canceled automatically
- *Rate import files retention period, days*: number of days (integer) during which rate import tasks (*Rate import* interface) and files of auto rate import ([Administration\Email processing rules](#) >> *Files*) are stored to be shown in the System
- *Rate snippet max number of rows*: controls the number of rows that can be displayed in the [RateSnippet] marker (which serves to list the rates in the rate export email body). See also the [Alaris YouTube](#) video
- *Running processes per CPU threshold*: maximum number of processes per core. Used for internal calculation of the possibility to launch simultaneous processes (for example, analytical cube calculation). Fractional values are allowed. The number of concurrent tasks is calculated as *the parameter value*number of cores* on the active database
- *SMS license exceeded*: if set to 1, SMS traffic will be rejected in case of exceeding the allowed monthly volume and in case the System setting *Block traffic exceeding license* is set to 1 as well. The parameter can be modified only by the Alaris technical support team
- *SMS module enabled (1 - enabled, 0 - disabled)*: flag showing if SMS interfaces are available for use. The parameter can be modified by the Alaris technical support team
- *Send rate change notifications as blind copy*: allowed values are 0 (do not send the notifications as BCC) and 1 (send the notifications as BCC). If set to 0, rate change notifications will be sent to addresses as specified in *Default rate change emails* ([Carriers\Agreements](#) interface) as CC, otherwise - as BCC. If the *send to partner emails* checkbox is selected for rate export tasks, rate changes are sent to the account manager's email address (in CC or BBC depending on the setting)

- *Server time offset from GMT*: self-updating parameter that shows the offset of the server timezone from the GMT timezone. For example, if the server timezone is GMT+1, the parameter will be shown as 1. The value is automatically changed for daylight saving timezones
- *Server timezone name*: name of the main platform timezone. It also serves as the default value in some interfaces - for example, *In/Out time zone* parameters ([Carriers\Agreements](#)^[117] interface) while creating an agreement or the *Timezone* field while importing the rates (*Rate import* interface)
- *Show start page watermark*: possible values are 0 (do not show the watermark) and 1 (show the watermark) on the *Start* page. To change the parameter, contact your account manager
- *Support email*: email address of the Alaris support team that some System notification and alarms are sent to
- *Swap deal expiry date*: license expiration date on the swap management module (see [Swap Deals](#)^[360])
- *Switch Redis DB hostname*: connection address used by the SMS switch to access Redis. Must not be changed
- *Switch Redis DB password*: password to be used for connection to Redis by the SMS switch. Must not be changed
- *Switch Redis DB port*: port required for the SMS switch connection to Redis. Must not be changed
- *System currency code*: code of the System currency, also shown in [Reference books\Currency exchange rates](#)^[177]. The value can be changed by the Alaris technical support team. Note that restart of the routing module is required to apply the change correctly. Also, exchange rates between the new System currency and the account currencies must be added in [Reference books\Currency exchange rates](#)^[177]
- *System date format*: information field to show which date format (without time) will be used in the System (the format affects dates in exported files except for rate export or financial data; additionally the format is applied to graphics on the *Start* page). Cannot not be changed
- *System date/time format*: information field to show which date format (with time) will be used in the System (the format affects dates in exported files except for rate export or financial data; additionally the format is applied to graphics on the *Start* page). Cannot not be changed
- *System debug mode (true or false)*: specifies whether the debug mode is enabled in the System (*true*) or not (*false*). If set to *true*, additional information will be shown in the *System log (Administration)* report. The parameter is intended for troubleshooting purposes
- *System name*: the System name that is used in header of the web browser. Note that the header is compiled from values specified in the *System owner name* and *System name* parameters
- *Temporary password logins allowed*: the number of allowed login attempts with a temporary password

NOTE: A temporary password is assigned to the user if the regular password was not changed in due time and expired. The user can log in the System with the temporary password and change it to a regular one. If the user fails to create a new regular password and uses up the number of logins specified in this parameter, the access to the System is blocked. The password can be changed at Start\User settings

- *Temporary password valid period (days)*: defines the period of the temporary password expiration. If the period has expired or the number of allowed logins is reached (see above), the password becomes invalid
- *Time full format*: information field to show which full time format (default one) will be used in the System. Must not be changed
- *Time short format*: information field to show which short time format will be used in the System (in case the control structure |SD is added - for example, to a rate export column: *Effective till|SD*). Must not be changed
- *UI dispatcher IP*: IP address of a server where the web module is installed in order to send update events from database. If the database and web interface are installed on the same server, the parameter must be set to 127.0.0.1. Several IP addresses (comma-separated) are allowed
- *UI dispatcher port*: port through which update events are sent from the database to the web interface. Several ports (comma-separated) are allowed. The default value is 5000
- *Warning threshold for running processes per core*: allowed number of processes per core. The default value is 1.5. In case the current load is greater than the value but lower than *Critical threshold for running processes per core*, a corresponding message will appear once the user launches a task (*Current average load is higher than the threshold and proceeding with the action may overload the System as well as the task will take more time than usual*). Note that only tasks (*EDR recalculation, export of EDR - from the Wholesale portal, Analytics and EDR export interfaces, export of rates and their generation, report sending and export*) created by users are taken into account
- *Web-server hostname/IP*: web server on which the web interface is installed. Must not be changed by the user
- *Campaign Portal module enabled (1 - enabled, 0 - disabled)*: the parameter serves for enabling Alaris Campaign Portal functionality in the System. Can be modified by the Alaris technical support team

4.8.2 DID inventory

☰ DID inventory

Batch format	YYYY-MM-DD | HH24:MI
Default aging period (days)	0
Last DID checkpoint	2020.08.01 00:27:09
List of TFN prefixes	1800,1888,1877,1866,1855,1844,1833,18...
List of products to check margin in the routing	17709
Use DID/TFN management	1

DID inventory

- *Batch format*: serves to generate the name of the batch (group of DID/TFN numbers) automatically if the *Batch* field is not specified during creation of a record ([DID management](#)^[366]). Markers can be used as well - for example, *YYYY-MM-DD HH24:MM:SS*
- *Default aging period (days)*: the number of days that must pass before the status of the number is set from *Aging* to *Available*. Integer values are allowed. If set to 0 when a record is deassigned, it immediately becomes *Available*. If set to *null* the default value (30 days) is used. Value changes affect the existing aging records - depending on the increase or decrease of the parameter, the aging period is extended or shortened

- *Last DID checkpoint*: date of the last DID checkpoint (serves for generation of charges)
- *List of TFN prefixes*: the parameter sets the list of toll-free number (TFN) prefixes. Numbers with these prefixes are considered toll-free numbers.
- *List of products to check margin in the routing*: list of products for which margin will be checked during routing. If set to *null*, the margin for termination of DID/TFN SMS will not be calculated. If a vendor product ID is set, the margin will be checked for SMS termination to the vendor product (for both cases DID and TFN margin is calculated as *vendor rate - client rate*). If the margin is negative, the SMS will be blocked
- *Use DID/TFN management*: consider DID/TFN numbers in billing and routing (possible values are 0 - disabled and 1 - enabled). If the functionality is enabled, the routing module performs the following steps:
 - client authorization
 - check if the B-number is in the list of assigned numbers ([DID management](#)^[368] interface)
 - if the number is in the list and its type is *DID*, the rate search logic is B-number longest match
 - if the number is in the list and its type is *TFN*, the rate search logic is A-number longest match
 - if the vendor product (to which the number is assigned) is in the *List of products to check margin in the routing*, the margin is calculated. If it is positive or the product is not in the list, the SMS is terminated to the vendor without any further search of vendor products. If the product is in the list and the margin is negative, the SMS is blocked
 - if the number is not in the list, the routing takes place as usual (search of vendor rates, search of suitable vendors in accordance with routing rules etc)

4.8.3 Data import

☐ Data import

Auto rate import parallel sessions	2
Auto rate import script config file	null
Default interface for email fetched files (0 - voice, 1 - sms,...	2
Email for auto rate import and mail client alerts	null
Ignore emails older than N hours	0

Data import

- *Auto rate import parallel sessions*: serves to limit the number of simultaneous auto import tasks. The parameter is intended to prevent the System load in case a large amount of emails have been received. Files are processed in the order of their arrival; auto import tasks for the same product will not be launched in parallel. If the parameter is left blank, the allowed number of simultaneous tasks is calculated automatically. See also the [Alaris YouTube video](#)
- *Default interface for email fetched files (payments, voice, sms, undefined, no interface)*: the System interface ([SMS\Rates\Rate import](#)^[258] or [Finance\Payments](#)^[157]) to which the System sends files received for rate import/payments if no rules are found for the email in [Administration\Email processing rules](#)^[22]. If set to *no interface*, the received files without any suitable rules are shown in the *Files* tab of *Email processing rules* only
- *Email for auto rate import and mail client alerts*: email addresses (comma-separated) to send notifications in regard to auto rate import tasks (for example, if an email processing rule was not found

or critical errors are found in the file). If set to *null*, alerts are not sent (additionally the list of recipients can be set in [Administration\Email processing rules](#)^[22] and [SMS\Rates\Auto rate import](#)^[23] interfaces)

- *Ignore emails older than N hours*: defines how far in the past the fetchmail service will look for unprocessed emails when getting new ones imported. This parameter allows the System to ignore cases when an old email is put into the “unread” folder (for IMAP protocol) or when the email server itself has a problem and does not mark older emails as processed (for POP3 protocol). Fractions of an hour can be used (for example, 0.5 will allow importing mail that is less than 30 minutes old). If set to 0 or null, all emails are processed

4.8.4 General data protection regulation

General Data Protection Regulation

Ignore message texts for customer channels	null
Wipe SMS contents after, days	50
Wipe personal data after, days of inactivity	30

General data protection regulation

- *Ignore message texts for customer channels*: the parameter serves to specify the list of client channels for which no text EDRs will be written. It means that the text of messages received from these channels will not be saved to the System
- *Wipe SMS contents after, days*: number of days (positive integer) after which SMS texts will be wiped. The default value is 0 (the functionality is disabled). In case the functionality is enabled, the System job will be launched every day and texts of messages with timestamps older than the specified value will be removed
- *Wipe personal data after, days of inactivity*: number of days (positive integer) after which all personal user data will be wiped. The default value is 0 (the functionality is disabled). In case of enabled functionality, the data is wiped based on a job which is launched once a day. Suppose the parameter is set to 50 days. Once the job is launched, the following data will be replaced by the *Info wiped by EU GDPR law* record:
 - contact emails (*Default invoice emails, Default rate change emails, Default technical emails, Account alert emails*) from [Carriers\Agreements](#)^[11] for all agreements that were closed more than 50 days ago (*End date* field)
 - *First name, Last name, Email* fields from the *Contacts* section (except for *Zip code*) from [Administration\Users](#)^[9] in case the user’s carrier has no active agreements and all past agreements were closed more than 50 days ago. See also the [Alaris YouTube](#) video

4.8.5 Financial module

Financial module

Add taxes to manual charges (0 - no, 1 - yes)	0
Balance alarm threshold #1	100
Balance alarm threshold #2	50
Balance alarm threshold #3	20
Balance alarm threshold #4	0
Balance alarm threshold #5	null
Balance status reset threshold	10
Calculate charge detail amount as volume * rate (0 - no, 1 - yes)	0
Charge detail rounding digits (client leg)	2
Charge detail rounding digits (vendor leg)	2
Charge detail rounding function (client leg): 0 - floor, 1 - round	1
Charge detail rounding function (vendor leg): 0 - floor, 1 - round	1
Credit alarm threshold #1, %	70
Credit alarm threshold #2, %	80
Credit alarm threshold #3, %	90
Credit alarm threshold #4, %	100
Credit alarm threshold #5, %	null
Credit and balance alarms default email (null - do not use it)	null

Financial module

- *Add taxes to manual charges (0 - no, 1 - yes)*: when enabled, the tax rate set in [Carriers\Agreements](#)^[117] is added to manually created charges
- *Balance alarm threshold*: defines the minimum amounts (fractional values are allowed) of the client account balance (in the account currency) to trigger an alarm (five thresholds are available; just one threshold may be specified but in this case it must be *Balance alarm threshold #1*). Balance alarms are sent in case of prepaid clients (the *In credit* option is set to 0 in the agreement). Additionally, the account's option *Send balance alerts* must be enabled. For clients with non-zero credit limit the System setting *Send balance alerts for accounts with non zero credit limit (0 - no, 1 - yes)* must also be enabled to receive balance alerts. The setting is System-wide; it is also possible to set the thresholds on the account level. Alerts are sent to the user's email address (if the option *Send alarms* is enabled) specified in the *Account alert emails* field in [Carriers\Agreements](#)^[117]. If the parameters are set to *null*, balance alerts will be sent only in case the thresholds are configured on the account level
- *Balance status reset threshold*: integer value (balance amount, in account currency) that defines a window when balance alerts are not sent. It can be handy when the client's balance is changed constantly. For example, the current balance is 1,000, the reset threshold is set to 20 and the balance

threshold is set to 950. Once the balance is lower than 950, the alert will be sent out. In case the balance fluctuates (for example, becomes 960 and then again becomes lower than 950), the alerts will not be sent - they will be sent out again when the reset threshold is reached (for this example the reset threshold is 970 (950+20) - so once the balance reaches 970 and is lower than 950 again, the alert is sent out)

- *Charge detail rounding digits (client/vendor leg)*: number of decimal places (integer value) in charge detail amount for client/vendor side correspondingly
- *Charge detail rounding function (client/vendor leg)*: defines the rounding method of the charge amount – downward (*floor*), mathematical rounding (*round*) or upward (*ceil*)
- *Credit alarm threshold #1-#5, %*: defines the minimum amount of the credit provided to a partner (configured in the *In/Out credit* field on the [Carriers](#) ^[11] [Agreements](#) ^[11]) to trigger an alarm (five thresholds are available; just one threshold may be specified but in this case it must be *Credit alarm threshold #1*). If the parameters are set to *null*, the credit alerts will be sent only in case the thresholds are configured on the account level. Alerts for the client side are sent to the user's email address (in case the option *Send alarms* is enabled), *Account alert emails* specified in the agreement, email addresses set in the *Credit and balance alarms default email*, and the email address of the account manager (if the System parameter *Send credit and balance alarms to account manager* is set to 1). Alerts for the vendor side are sent only to the account manager's email and to the *Credit and balance alarms default email* if specified.
- *Credit and balance alarms default email (null - do not use it)*: list of email addresses (comma-separated) that receive balance and credit alerts for all accounts that have the *Send balance alerts* flag checked
- *Credit status reset threshold, %*: defines the minimum amount of balance for credit alarms to be triggered again (it is done to prevent numerous alarms when the client balance is fluctuating around the limit because of bilateral traffic, increasing a bit above the disconnection point and then dropping below the limit again). Example: suppose the *Credit alarm threshold* is set to 70%, the *Credit status reset threshold* is 5%, and the credit usage fluctuates between 69% and 71%. For the alert to be sent again, the credit usage must first drop to at least 65 percent and then rise to 70 percent
- *Credit status reset threshold*: same as *Credit status reset threshold, %*, but measured in the System currency instead of percentage
- *Cross-monthly invoice splitting (0 - no, 1 - yes)*: defines whether invoices with the billing period covering the joint between two months must be split in two separate invoices (for example, when a partner's billing period is set to *Weekly*). Additional configuration can be done on the agreement level. If the agreement's option *Cross-monthly invoice splitting* is set to *Default*, the value from the System settings is used
- *Current invoice number*: defines the index number of the next automatically generated invoice (increases automatically with every invoice generated by the System, i.e. does not count manually created documents). This parameter is used in generation of the invoice reference number. The parameter's value is editable (e.g. to start invoice enumeration from the beginning set the parameter to 1)
- *Default charge grouping mode (1 - separate invoices for client and vendor side; 2 - separate invoices for each product; 3 - separate charges within 1 invoice)*: defines how invoices are grouped if the *Autovalue* flag is checked in the [Carriers](#) [Products](#) ^[103] *Add* or *Edit* tab. Possible values include:

- 1 - *separate invoices for client and vendor side*: traffic details for all products are grouped in one invoice for each traffic direction (client or vendor)
 - 2 - *separate invoices for each product*: a separate charge and a separate invoice are issued for each product
 - 3 - *separate charges within one invoice*: a single invoice contains several traffic detail files, one for each charge
- *Default detail comparison match percentage*: default value (in percent) which defines the similarity coefficient between System charges and partner charges. The value will be set automatically to the *Similarity* field ([Finance\Charges](#)^[138] >> *Show partner details* >> *Compare*) and can be changed every time
 - *Email address list to CC finance-related emails*: defines the additional email addresses for invoice delivery; several comma separated addresses can be specified. The same setting (as well as *Email address list to BCC finance-related emails*) can be specified in [Reference books\Contract companies](#)^[164] for each contract company individually
 - *Finance first (second, third) currency*: text string that defines additional currencies in which invoices and charges can be calculated (normally they are displayed in the account currency). Examples: USD, EUR etc. The default value is *null*. The parameters are used for calculation of financial cubes in different currencies with the use of [invoice markers](#)^[77] (for example, [EstimatedAmountIn<currency_code>]). Note that the conversion will take place as of the date specified in the System parameter *Invoice currency rate date* in case the System parameter *Invoice estimated amount currency conversion method* is set to 2 (otherwise it will be calculated on a daily basis). The default value for the first currency is the System currency (cannot be changed from the web interface and cannot be set to null). The default value for the second/third currency is null.

NOTE: After you configure the currencies in *Finance first (second, third) currency*, perform EDR rerating (see [SMS\EDR management\EDR Rerating](#)^[232]) and invoice recalculation (see [Finance\Invoices\Editing invoices](#)^[147]) for the appropriate period, otherwise all amounts in the *Charges* table will be zero. Before invoice recalculation, check that the respective financial cubes have been updated (refer to [Reports\SMS Analytical cube status](#)^[186] for the information).

- *Force generate invoices after, hours*: integer value that specifies the timeout after which invoices will be generated at the end of the billing period. The parameter serves to generate invoices even if corresponding cubes have not been calculated yet
- *Generate reference code for outbound invoices (0 - no, 1 - yes)*: specifies if the reference number of invoices and credit notes should be generated for the vendor side. The default value is 0 (do not generate). The minimum amount is 0.01. In case the option is set to 1 (enabled), the number for invoices will be generated based on *Invoice reference number format (outbound)* of the corresponding contract company ([Reference books\Contract companies](#)^[164]). If the parameter is not set, the format is taken from the *Invoice reference number format (inbound)* parameter (of the same contract company as well). If none of the parameters are specified, the value is taken from the System parameter *Invoice reference number format*. The format for credit notes is generated based on *Credit-note reference number format (outbound)* ([Reference books\Contract companies](#)^[164]) of the carrier's contract company if specified, otherwise - from *Invoice reference number format (outbound)* of the same contract company as well. If both parameters are not set, *Invoice reference number format (inbound)* of the same contract company is used. If none of the parameters are set, the System setting *Invoice reference number format* is used for the number generation
- *Global minimum vendor invoice amount, Global minimum client invoice amount*: the parameters set the invoice amount threshold (in account currency) for client/vendor directions correspondingly

(fractional values are allowed). If the charge for a billing period is lower than the value, no invoice will be generated. The amount still affects the balance and is shown in the *Transaction history* reports in the [Reports](#) ^[178] interface. If set to *null*, no threshold is applied (except for *In/Out minimum invoice amount* on the agreement level). See also the [Alaris YouTube](#) video.

- *Invoice auto-dispatch delay, hours (null - auto confirmation and dispatch is off)*: when the value is a positive integer, all invoices are confirmed and sent to client side automatically with the delay specified in the parameter. Note that the dispatch is launched according to the System job FIN_HOURLY_ROUTINES. When the value is *null*, all created invoices must be confirmed and dispatched manually
- *Invoice correction type (1 - replace invoice, 2 - correct last invoice)*: defines the method of sending invoice corrections. When the value is 1, the invoice is replaced and the partner receives a new version of the invoice. Note that in case the invoice has the *Sent/Delivered/Confirmed* status it will not be resent to the client. When the value is 2, the partner receives an additional credit note or new invoice
- *Invoice currency rate date (1 - issue date, 2 - period end date, 3 - period start date)*: the parameter defines the date as of which the currency exchange rate ([Reference books\Currency exchange rates](#) ^[178]) must be taken to replace markers that show amounts in a currency different from the account currency (for example, [EstimatedAmountIn<currency_code>])
- *Invoice delivery options (1 - attachment, 2 - link, 3 - separate emails, 4 - attachment+links, 0 - do not send)*: defines the way invoices and the traffic details summary are sent. Links are replaced with the markers [DocumentLink] and [DetailsLink] (can be set in [Administration\Template manager](#) ^[75] >> *Invoice letter* template)

NOTE: If the value 2 (link) is selected, the email will be sent twice every 24 hours (or until the recipient clicks on the link - in which case the invoice status will change to *Delivered*).

- *Invoice details filename pattern*: defines the file name format of the file with the traffic details summary (for example, [CompanyName]_[InvoiceDate]_[Details].pdf). The parameter also supports other [markers](#) ^[77]. A different format can be set on the contract company level ([Reference books\Contract companies](#) ^[164] >> *Invoice details filename pattern*)
- *Invoice due date based on (0 - issue date, 1 - registration date)*: the parameter defines the date based on which the invoice due date is calculated. The default it is the issue date (0). If the parameter is set to 1, the calculation is based on the registration date (which is the date of the invoice confirmation)
- *Invoice estimated amount currency conversion method (1 - floating rate, 2 - single rate according to parameter)*: defines the method of invoice amount calculation in case the currency exchange rate must be applied (when a marker for invoice amount in a currency other than the account currency is used - for example, [EstimatedAmountIn<currency_code>]). If set to 1, the exchange rate is taken on daily basis to calculate corresponding financial cubes. If set to 2, the currency exchange rate is static and taken as of the date defined in *Invoice currency rate date*
- *Invoice filename pattern*: defines the format of the invoice file name (for example, [CompanyName]_[InvoiceDate].pdf). The parameter supports [markers](#) ^[77]. Additional configuration can be performed on the contract company level ([Reference books\Contract companies](#) ^[164] >> *Invoice filename pattern*)
- *Invoice generation delay, hours*: period to delay invoice generation after the invoicing period ends – this is done to make sure that all the late EDRs for that period successfully hit the System before the invoice is generated. Note that the delay is applied to the date of the last cube change. Integer values are allowed. If set to *null*, invoices will be generated without any delay once the cubes are ready (can be checked in the report *SMS analytical cube status (Administration)*)

- *Invoice issue date option (1 - last day of current billing period, 2 – first day of next billing period):* defines the date of invoice issue
- *Invoice presented amount includes tax (1 - yes, 0 - no):* defines whether the amount due according to partner estimation includes tax. If set to 0 and the *Amount source* of an invoice is *Amount presented by partner*, *Due amount* is calculated as *Presented amount+taxes*. If set to 1 and the *Amount source* of an invoice is *Amount presented by partner*, *Presented amount* will be used as it is
- *Invoice reference number format:* defines the format of the invoice reference number. The parameter supports all alphabetical and numeric values. The following markers can also be used here:
 - [XXXX] (the number of X's can vary) – placeholder for the value from the *Current invoice number* parameter. The number of X's stands for the amount of digits to display. For example, if the *Current invoice number* is set to 123 and the *Invoice reference number format* parameter is set to [XXXXX] (five X's) - the reference number of the next generated invoice will be 00123
 - [CAR_ID] – ID of the partner Carrier record
 - [AGR_CODE] – code of the partner's agreement (defined by the mandatory field *Agreement code* of [Carriers\Agreements](#)^[117])
 - [YYYYMMDD] or [YYMMDD] – the invoice generation date (displayed in the *Created* column of the [Finance\Invoices](#)^[142] page)
 - [PARAMX] - where X is the ID of a custom parameter defined in [Administration\Custom parameter types](#)^[27]

Additional configuration can be done on the contract company level ([Reference books\Contract companies](#)^[164] >> *Invoice reference number format*)

- *Limit mapping to the specific documents of the same billing period (0 - no, 1 - all, 2 - map to invoices, exclude payments):* when the value is 1, automatic mapping is performed only for documents belonging to the same billing period; automatic mapping for payments takes place irrespective of the period. When the value is 2, payments are excluded from automatic mapping operations but can be mapped manually; only invoices of the same billing period are mapped
- *Min absolute mismatch to invoke a dispute:* the minimum absolute difference between the System owner's and partner's invoice amounts to start a dispute (*Presented amount* and *Due amount*). Note that both of these thresholds must be exceeded to change the invoice status to *Disputed*. In case one of the parameters is set to *null*, only the other one will be taken into account for assignment of the *Disputed* status. In case both parameters are null, the invoice status can be set to *Disputed* only manually. It is also possible to set the thresholds on the agreement level
- *Min percent mismatch to invoke a dispute:* same as above, but checking the relative difference (in per cent). Both of these parameters should be surpassed to change the invoice status to *Disputed*
- *Notification period of deferred payments coming due, days:* the number of days for notifying a partner about the expiry of a draft payment - one that is created with the disabled *Confirmed payment* checkbox (see [Finance\Payments\Payments table](#)^[157] for more detail on draft payments). The email addresses are set in [Carriers\Agreements](#)^[117] (*Default invoice emails* field)
- *Open financial period, days:* defines the period in days within which financial data can be changed in the past (starting from the current date). For example, if the parameter is set to 30 and EDR rerating

is performed for a period later than a month ago, it will have no effect on financial data (balance, existing invoices, etc.)

- *Request delivery receipt for invoices (0 - no, 1 - yes)*: when enabled, emails with invoices will require confirmation of receipt. Note that the *Disposition-Notification-To* header is used for confirmation sending (supported by MS Outlook). The confirmations are sent to the email address from which the invoice was received. See also the [Alaris YouTube](#) video
- *Scoring (Credibility), Scoring (Payment stability), Scoring (Subjective estimation), Scoring (Traffic volume stability)*: defines the weight of partner's estimation index – a bigger value in the field means more weight of this parameter among others. Credibility is an index of the partner's due diligence, automatically calculated based on the partner's payment stability, subjective estimation (set on the [Carriers](#)^[99] page), credit limit ([Carriers\Agreements](#)^[117]) and traffic volume stability
- *Send balance alerts for accounts with non-zero credit limit (0 - no, 1 - yes)*: defines whether balance alerts must be sent to accounts having a credit limit ([Carriers\Agreements](#)^[117] >> *In credit limit*). The thresholds for balance alert sending must be configured either in the System settings parameter *Balance alarm threshold #1-#5* or in the similar parameter on the [Carriers\Accounts](#)^[109] page
- *Send credit and balance alarms to account manager (0 - no, 1 - yes)*: defines whether credit/balance alarms are sent to the client account manager on the System owner's side (to the address indicated in the *Email* field in the account manager's user record on the [Administration\Users](#)^[97] page)
- *Send credit and balance alarms to customer (0 - no, 1 - yes)*: defines whether credit/balance alarms are to be sent to the partners (to the addresses indicated in the *Account alert emails* field in the [Carriers\Agreements](#)^[117]). Note that the System parameter has priority over *Send balance alerts* on the account level - even if the account setting is enabled, but the System setting is disabled (set to 0), the alerts will not be sent to clients
- *Send notifications of deferred payments coming due to client (1 - yes, 0 - no)*: defines whether to notify partners about the expiry of draft payments (see [Finance\Payments\Payments table](#)^[157] for more detail on draft payments). The email addresses are set in [Carriers\Agreements](#)^[117] (*Default invoice emails* field)
- *Send payment confirmation to partner (0 - do not send, 1 - send to account alert emails, 2 - send to default invoice emails)*: specify to which recipients payment confirmation must be sent. The *account alert* and *default invoice* email addresses are configured in respective fields in [Carriers\Agreements](#)^[117]. If the option is enabled, the notification sending period is defined in the parameter *Notification period of deferred payments coming due, days*
- *Skip checking rerating tasks before invoice generation (1 - skip, 0 - do not skip)*: specifies whether EDR rerating tasks must be ignored for invoice generation. If set to 0 and there are rerating tasks that affect the invoice billing period, the invoice will not be generated until the tasks are complete
- *Suggest making document mapping by default (1 - yes, 0 - no)*: when the parameter is set to 1, the *Make auto mapping flag* in the *Edit invoice form* is checked by default
- *System owner name*: name of the System owner. The name affects the value of the marker [SystemOwnerName]. Additionally, the name is shown as the header of tabs opened in the browser (the main web interface) and as the name for REST API (for example, Alaris REST API)
- *Unconditional invoice dispute threshold*: the minimum absolute difference between the System owner's and partner's invoice amounts to start a dispute, regardless of the parameter *Min*

absolute mismatch to invoke a dispute. If set to *null*, the parameter is not used. Additionally the threshold can be set on the agreement level

- *Zip traffic details when sent to e-mail (0 - no, 1 - yes):* defines whether the traffic detail files attached to the e-mails sent by the System are archived. Note if several traffic detail files are formed, they are archived regardless the parameter value

4.8.6 Partner portal

Partner portal	
Allow Wholesale portal user registration (0 - no, 1 - yes)	1
Allow Wholesale portal users to edit POI (1 - yes, 0 - no)	1
Available currencies (null - All)	null
Available product IDs (null - All)	null

Partner portal settings

- *Allow Wholesale portal user registration (1 - yes, 0 - no):* defines whether Wholesale portal users can create their accounts themselves or new user registration is only performed by the System Owner. Note that the registration button is available in case the System setting *Wholesale portal access mode (1 - read/write, 2 - read only)* is set to 1
- *Allow Wholesale portal users to edit POI (1 - yes, 0 - no):* defines whether Wholesale portal users can create and edit their POIs
- *Available currencies (null – All):* comma-separated list of currency codes defined in the System, which will be available in the Partner portals (both the Wholesale portal and Alaris Campaign Portal) for new partner account creation. Note that the currency codes can be found in [Reference books\Currency exchange rates](#)^[174]. If set to *null*, all currencies are available
- *Available product IDs (null – All):* comma-separated list of client products belonging to the System owner that will be available as parent products in the Wholesale portal for new partner product creation and in the Alaris Campaign Portal as available rate plans. If set to *null*, all possible products are available. If the parameter contains a non-existing product ID, no product will be available for product creation/rate plan assignment in the portals correspondingly
- *Campaign status change notification emails:* list of email addresses (comma-separated) where notifications of campaign status change (*Paused, Canceled, Completed* or *Failed*) will be sent. The texts of the notifications are defined in the following templates ([Administration\Template manager](#)^[78]): *SMS campaign fail threshold letter (html)*, *SMS campaign failed messages resend notification (html)*, *SMS campaign resuming notification (html)*, *SMS campaign start letter (html)*, *SMS campaign status change letter (html)*. See also the [Alaris YouTube](#) video
- *Credit limit for new Campaign Portal clients:* the parameter allows configuring the predefined credit limit ([Carriers\Agreements](#)^[111] >> *In credit limit*) for Alaris Campaign Portal users (integer values are allowed). Note that it is also possible to specify the credit limit on the contract company level (which has priority over the System setting) in [Reference Books\Contract companies](#)^[162]. Decimal values are allowed in the interface. Note that the value is rounded down to 2 decimal places if more than 2 places are specified
- *Default SMS channel NPI, Default SMS channel TON, Default SMS channel address range, Default SMS channel port, Default SMS channel system type:* parameters for SMS channel creation using the Wholesale portal. Values entered in these fields will be default settings for the newly created channels. The *null* value means that no default value is specified. Note that if an

incorrect value is specified, the SMS channel may be created with incorrect parameters which may lead to traffic rejection

- *Default account manager user ID*: ID of the user belonging to the System owner that will be appointed as the account manager for all new self-subscribed clients at the Partner portals. If set to *null*, no account manager is assigned
- *Default long message split mode*. Allowed values: *split*, *split_sar*, *payload*, *cut*. defines how long messages are treated by default when they are sent from Alaris Campaign Portal. Possible values are: *split* - split message into several messages with UDH, *split_sar* - split the message using SAR TLV fields; *payload* - send long texts in a dedicated optional field (*message_payload*) that can contain up to 4kb (some vendors may not support it); *cut* - trim the message to 140 bytes. Note that the default value can be changed during message sending (*Dashboard* page in Alaris Campaign Portal)
- *Default SMS rate plan (Product ID) for new Campaign Portal clients (null - do not add rate plan)*. Several IDs for different currencies can be set separated by comma: the parameter defines the rate plans (parent product IDs in different currencies) which will be assigned to partners in Alaris Campaign Portal when their registration is completed. Note that a product ID specified here must be specified in the *Available product IDs (null - All)* parameter (if set to a value other than null)
- *Duplicate dest.number import merge type (1 - ignore duplicates, 2 - update number tags only, 3 - update tags and contact data, 4 - add duplicates separately)*: defines the behavior for import of contacts in Alaris Campaign Portal when processing duplicate DNIS entries. Possible values are:
 - 1 – ignore duplicates without uploading them
 - 2 – update number tags only (new tags will be added to an existing contact entity keeping old data field values like *First/Last name*, *Comments*, etc.)
 - 3 – update tags and contact data (new tags will be added to an existing contact entity overriding old data field values)
 - 4 – add duplicates as separate records
- *E.164 number pattern (POSIX format)*: a regular expression that affects contact import operations in the Alaris Campaign Portal: records containing non-matching destination addresses will be treated as incorrect and rejected. For example, the record `^[0-9]*$` allows only numeric destination addresses. Additionally it serves to verify numbers inserted to the *Recipient* field of Alaris Campaign Portal - if the verification is successful, the field will be highlighted in green. See also the [Alaris YouTube](#) video
- *E.164 number pattern (java format)*: a regular expression (java format) that specifies a pattern of destination addresses allowed during message sending. For example, the expression `\p{Digit}{5,11}` will result in accepting only numeric values with the length of 5 to 11 digits. The default value is `.*` which accepts all destination addresses
- *EDR export record count limit*: maximum number of EDRs that can be exported in a single session. The default value is 10000. Note that an increase of the parameter may slow down operation of the System
- *Emails to send errors of payment registration*: the email for sending any payment confirmation error notifications (for Authorize.net, PayPal etc.). If set to *null*, no emails are sent
- *Infrastructure POI IPs (comma separated)*: IP addresses of the System owner's internal network. The parameter is intended for creation of additional POIs with the specified IPs. Once a POI is

created in the client portal, additional POIs are created with the same parameters except for the IP address

- *Initial payment for new Campaign Portal clients*: the amount that is automatically added to the balance of a newly registered user (decimal places can be used). Note that the same parameter on the contract company level ([Reference books\Contract companies](#)^[164]) has priority over the System parameter
- *Invalid sender ID error message*: an error message that appears in Alaris Campaign Portal if the Sender ID value does not match the regular expression set in the parameter *Sender ID pattern*. JSON format can be used, for example: {"en":"Invalid Sender ID", "ru":"Некоррект ный идент ификат ор от правит еля"}
- *List of roles for newly registered users*: list of roles (comma-separated) for self-registered Alaris Campaign Portal partners. Since the parameter contains internal codes as values (database names and not web interface names), contact the Alaris technical support team to change it
- *MO matching window frame, min*: serves to define a timeout for matching user response (MO) to an MT message sent from Alaris Campaign Portal (single message or campaign). The default value is 5 (minutes) which means that if a MO message is sent within 5 minutes, the MT and MO messages are matched and the user response is shown in the Alaris Campaign Portal statistics tab. The match also takes place based on the sender ID and destination address (the MO message destination address must be the same as the MT message sender ID; the MO message sender ID must be equal to the MT message destination address). Decimal values are allowed. See also the [Alaris YouTube video](#)
- *Mandatory Wholesale user positions (comma separated)*: the parameter is intended to specify obligatory user positions that must be configured in the Wholesale portal. For example, if the parameter contains *Rates,Billing,NOC* - these roles will be required for setting in the Wholesale portal. This parameter comes instrumental in distributing tasks – as users in these positions will receive notifications on respective System events such as sending of rates, invoices etc.
- *Max client products per carrier (null - unlimited)*: maximum allowed number of products configured in the Wholesale portal and Alaris Campaign Portal. If set to null, the number is not limited
- *Maximum number of DB sessions for Wholesale portal*: an integer value that defines how many simultaneous requests can be sent to the database from the web interface of the Wholesale portal
- *Message limit for Campaign Portal campaigns*: number of messages per second that are sent within a campaign. The limit is intended to prevent clients from any negative effect when another client is sending a large campaign
- *Number of parallel threads for EDR export tasks in Campaign Portal*: the maximum number (integer) of simultaneous threads per one EDR export task launched from Alaris Campaign Portal
- *Number of parallel threads for sms dispatch in Campaign Portal*: integer number of simultaneous threads that can be created during campaign sending from Alaris Campaign Portal. Note that if set to 1 (single-thread mode), the MPS (number of sent messages per second) can be low - up to 10
- *Poi IP mask to hide in partner portal (null - show all)*: subnet of IP addresses that should not be displayed at the Wholesale portal. For example, the setting can be specified as 1.2.3.*|12.34.56.67|3.2.* The POI with the IP address 12.34.56.67 will not be shown in the Wholesale portal as well as any POI which address starting either with 1.2.3 or with 3.2. If set to null, POIs with any IP addresses are shown

- *Register external payments as drafts* - when enabled, new payments made in the [Wholesale portal](#)^[571] and [Alaris Campaign Portal](#)^[380] through payment systems are registered as drafts. In this way, the new payment does not affect the client balance, and can be confirmed by the user of the main System interface before it affects the balance. If the option is disabled (0 - default behavior), payments are created with the *Confirmed* status. See also the [Alaris YouTube](#) video
- *Segment billing mode for new Campaign Portal clients (1-5)*: serves to set the SMS billing mode for all contract companies. See also the [Alaris YouTube](#) video. Possible values include:
 - 1 - Bill by messages, exclude vendors with segment billing
 - 2 - Bill by messages, include vendors with segment billing
 - 3 - Bill by segments, calculate routing rate by message
 - 4 - Bill and calculate routing rates by segments
 - 5 - Bill by messages/segments depending on vendor mode

NOTE: Additionally the billing mode can be set on the contract company level ([Reference books\Contract companies](#)^[164]), which has a priority over the System setting. This parameter is used only in case the Campaign Portal user subscribes to an SMS pack. When the user subscribes to a specific rate plan, the billing mode is inherited from the respective parent product. See also the [Alaris YouTube](#) video.

- *Send partner portal notifications to (null – don't send)*: email address to send email notifications when a new user or partner POI is created, or a payment is made through the Wholesale portal or Alaris Campaign Portal. If set to *null*, notifications are not sent
- *Sender ID pattern*: a regular expression that defines the format of the *Sender ID* field in Alaris Campaign Portal. For example, if the parameter is set to `^[a-zA-Z0-9]{10}$`, 10-symbol alphanumeric senders will be allowed (for message sending use *Dashboard* page, for campaign sending use the *Campaigns* page, for template creation use the *Templates* page).

NOTE: The user can configure the error message shown if the *Sender ID* value does not match the preset regular expression. For that purpose, use the parameter *Invalid sender ID error message*.

- *Show fully paid invoices (0 – no; 1 – yes)*: defines whether the invoices settled by a partner should be displayed in the Wholesale portal. Unsettled invoices are always displayed
- *Spare database connection waiting timeout*: defines the keep alive time for the requests from the Wholesale portal GUI to the database if the *Maximum number of simultaneous connections to database* is exceeded. The default value is 15
- *Wholesale portal URL*: web address of the [Wholesale portal](#)^[372]
- *Wholesale portal access mode (1 - read/write, 2 - read only)*: defines access permissions to the [Wholesale portal](#)^[372]. The *Write* permission allows users to edit data from the portal - for example, to delete a POI. Note that if the parameter is set to 2, registration at the Wholesale portal is not allowed
- *Campaign Portal URL*: URL of the [Alaris Campaign Portal portal](#)^[380] (for SMS campaigns)

- *Campaign Portal carrier name prefix (used if company name is not set):* the System uses its value as the company name if the *Company* field is left empty during registration in the Campaign Portal. The default value is *Retail client* - which means that a carrier with the name *Retail client (%user's email address%)* will be created (if the user has not specified the *Company* field). If set to *null*, the user's email address is used as a carrier name. If set to any other value, the value (without the user's email address) will be used. See also the [Alaris YouTube](#) video
- *Campaign Portal dispatcher IP:* IP address of a server where web module is installed in order to send update events from database. In case the database and web interface are installed on the same server, the parameter must be set to 127.0.0.1. The parameter must not be changed by the user

4.8.7 Replication

Replication	
Enable sync from master server (0 - no, 1 - yes)	0
Replication server IP address	192.168.18.234
Replication server database SID	invoice
Replication server password for main DB scheme	*****
Replication server port	1521

Replication

- *Enable sync from master server (0 - no, 1 - yes):* defines whether synchronization must be enabled. The parameter is intended for enabling synchronization between active databases of different Systems - it is handy when you have two Alaris Systems installed. When synchronization is enabled, the data of pre-defined tables (specified in the internal database table `invoice.rep_table`) will be synchronized between the Systems. The parameter must be changed by the Alaris technical support team only
- *Replication server IP address:* IP address of the active database whose data must be synchronized with the current System. If the database is switched to the standby mode, the data will not be synchronized, and corresponding error messages will appear in the report [System log \(Administration\)](#). The parameter must be changed by the Alaris technical support team only
- *Replication server database SID:* SID of the active database where data will be synchronized from with the current System. The parameter must be changed by the Alaris technical support team only
- *Replication server password for main DB scheme:* password to access the active database for synchronization (under the *invoice* user). The parameter must be changed by the Alaris technical support team only
- *Replication server port:* port of the active database. The parameter must be changed by the Alaris technical support team only

4.8.8 SMS

☰ SMS

Active EDR day count	62
Apply postponed DLRs in, days	null
Archive EDR day count	365
Automatic EDR archiving limit	30000000
Buffered EDR storage period, days	30
Default vendor GUID (if not supplied in csv files)	null
Delivery timestamp delta (sec)	15
EDR loader process count	null
EDR rerating step (in minutes)	30
EMA frame	100
EMA stats delay, min	5
EMA stats last date	2018.09.03 08:35:33
EMA valid period, days	2
Enable system-wide stateful concatenated messages pro...	0

SMS

- *Active EDR day count*: period during which EDRs can be accessed for various operations (such as rerating, invoice generation etc.) After this EDRs are moved to an archive and are no longer available from the main web interface. If the default value is decreased, the data is moved to the archive partition iteratively (run by the System job `PRV_CLEANUP_SCHEME`). Any increase of the value must be approved with the Alaris technical support team as the operation may require additional disk space
- *Apply postponed DLRs in, days*: delay period for applying DLRs generated before the date specified in the parameter *Postpone applying DLRs for SMS received before*. If set to *null*, delivery reports will be applied immediately
- *Archive EDR day count*: EDR storage period in an archive. After this EDRs are deleted. If the default value is decreased, the data is removed iteratively (run by the System job `PRV_CLEANUP_SCHEME`). Any increase of the value must be approved with the Alaris technical support team as the operation may require additional disk space
- *Automatic EDR archiving limit*: the number of EDRs archived within a single session (for example, if set to 10000000 and if the default *Active EDR day count* is decreased, EDRs will be moved to the archive partition by 10000000 EDRs per iteration). The EDRs are moved to the archive every day (by default at 01:30 by server time) in accordance with the System job `PRV_CLEANUP_SCHEME`
- *Buffered EDR storage period, days*: the default value is 30. It specifies how many days buffered EDRs can be stored in the active partition (with statuses `BUFFERD_CLB`, `BUFFERD_HB`, `BUFFERD_RB`, `BUFFERD_VLB`, `BUFFERD_VSLB`, `BUFFERED_SEGMENT`). Once the value is reached, the EDRs are deleted
- *Delivery timestamp delta (sec)*: the parameter is intended to specify the timestamp shift of delivery reports for concatenated messages - the default switch logic is to shift 'Event time' of concatenated message parts (since uniqueness of EDRs is based on the event time+message ID. In case a vendor returns the same message ID for all parts, duplicates will not be written to the database). The parameter is applied in order to match such submits (with shifted timestamps) with delivery reports

- *EDR loader process count*: defines the guaranteed number of loading processes of EDRs which will be launched irrespective of the System load. The recommended value is 0 which means that the number of the processes will be defined by the System performance and its current load
- *EDR rerating hour*: the hour when the daily auto-rerating procedure runs
- *EDR rerating step (in minutes)*: default value is 30 minutes which means that during rerating of EDRs for the defined period they will be rerated by portions of 30 minutes
- *EMA frame*: window (number of attempts) for calculation of statistics for routing - for example, for routing metrics such as *CLPoiDLR* or *RuleDivCNT*. The default value is 100, meaning that if the number of attempts arrived within last minute is less than 100, the statistics will be calculated by EMA (*Exponential Moving Average*) algorithm
- *EMA stats delay, min*: the statistics calculation delay in minutes. The statistics is applicable to DLR metrics and metrics based on the routing rules usage counters - such as *VPoiDLR*, *RuleAttCNT*, *RuleSucCNT*, etc. It is calculated every time System jobs *SMS_UPDATE_DELIVERY_EMA* (for DLRs stats) and *SMS_UPDATE_RULE_EMA* (for routing rules stats) are launched (every 5 minutes by default). The statistics is checked for the period between the last check date and the current date, where the date of the last check can be seen in *EMA stats last date*, and the value specified in *EMA stats delay, min* is subtracted from the current date. For example, if the job is launched at 15:05:00, the interval for calculation will be 14:55-15:00

NOTE: In terms of routing statistics, the EMA tool serves to secure prevalence of recent EDRs over earlier ones; the System's routing module receives all SMS statistical data from the database, where EMA is calculated retrospectively with the specified delay, i.e. data on messages arriving within or after this delay period is not taken into account since it can seriously damage the overall analytical picture, for example, because of the absence of delivery reports that are most likely to arrive shortly afterwards.

- *EMA stats last date*: date and time of the latest update of statistics. When statistics (for DLRs and routing rules) has been calculated, the date is set to current date minus *EMA stats delay, min*
- *EMA valid period, days*: stats validity period in days for stats validity for items used in the routing rules (for example, client MCC MNC code). If on expiration of the specified period no traffic is processed for the item, the routing module will assume statistics for this item as null; if even one SMS arrives within this period the stats will be considered valid
- *Enable system-wide stateful concatenated messages processing*: the parameter serves to control the list of channels that are used for sending all segments of an SMS through a single vendor. When set to 1, all client channels expect to receive all parts of a long message before sending a single routing request and thus receive the same routing list for all the parts and send all the parts through the same vendors.

NOTE: To create a custom list of channels, use the parameter *Stateful concatenated messages processing* in [Carriers\SMS channels](#)^[12b] (available only when *Partner direction = Client*). This means you can choose the necessary list of channels and activate the option for each of them. Find out more in the [Alaris YouTube video](#).

- *Is_last flag update delay (hours)* and *Is_last flag update window frame (hours)*: work together for updating the EDR's *Is last* flag when rerouting based on delivery reports takes place. In this situation, ASR in [SMS\Analytics](#)^[21b] can be shown higher than 100% for some time. It will be updated within the period specified in the parameters. The logic is as follows: the System job *SMS_UPDATE_CDR_LAST* runs twice an hour and checks all EDRs between *Is_last flag update delay+Is_last flag update window frame* and *Is_last flag update window frame* - and the flag *Is last* for non-last messages is removed. For example, if both parameters are set to 24 (hours), once the job is launched, the period between the last two days and the last day is checked

- *List of client products to apply activation reports to*: list of client product IDs (comma-separated) for which the conversion/activation report will be applied. Starting from version 3.5.13 the System allows receiving device activation status notifications from Viber. These notifications confirm that the SMS has been delivered to the end user device. The system receives the notifications and registers them in the EDR, changing the delivery status to ACTIVATED. To enable the activation feature in the System, contact the Alaris technical support team
- *Max rerating interval*: defines the maximum period (in days) affected by the daily auto-rerating procedure. The value cannot be set greater than *Active EDR day count*. Suppose the parameter is set to 30 days and there is a rate for the period 01/01/2018 00:00:00 - 01/01/2019 00:00:00 (today is 01/01/2019). Suppose the price was changed during the day. When auto rerating starts (defined by *EDR rerating hour*) the period 02/12/2018 00:00:00 - 01/01/2019 00:00:00 (last 30 days) will be recalculated for the rate
- *Maximum autorerating job count*: maximum number of simultaneous autorerating tasks
- *Non-match DLR storage period, min*: storage period of DLRs with no matching EDR submit_sm packets. The parameter is intended to match delivery reports which for some reason were inserted to the database before the EDR with the corresponding submit_sm packet
- *Postpone applying DLRs for SMS received before*: postpone applying DLRs for messages received before the specified date. The parameter serves to prevent backdate update of statistics during invoice generation. The postponed DLRs will be applied after the delay configured in the parameter *Apply postponed DLRs in, days*. The parameter must be specified as a date, for example: 2016.06.19 12:30:00. If set to *null*, delivery reports are applied with immediate effect
- *Resolve domain names for SMS channels every X minutes*: serves to specify how often the System needs to check the domain name of SMS channels. For example if the value is 2, the System will resolve all domains specified in the SMS channels every 2 minutes. Note that domain names can be specified only for the vendor direction. Additional info in regard to the resolved names will be posted to the [System log \(Administration\)](#)^[184] report if the System parameter *System debug mode (true or false)* is set to *true* (can be changed with the help of the Alaris technical support team)
- *Rule count stats clear policy (1 - daily, 2 - weekly, 3 - monthly)*: defines how often the System must reset the values of the rule attempt counters RuleAttCNT (total attempts), RuleSucCNT (successful attempts) and RuleDivCNT (delivered attempts) - see [SMS\Routing\Routing rules\Rules page](#)^[293]. For example, if set to 1, every day at 00:00 (by server time) statistics will be removed; if the value is 2, the reset will happen every Monday at 00:00; if set to 3, the metrics will be set to 0 on the 1st day of every month (at 00:00 as well)
- *SMS status request periods*: serves to set the number and periods of requests (the periods are set as numbers separated by either comma or blank space). The default value is 5,15,60. Up to 4000 symbols can be inserted. Positive integer values are allowed, negative values will trigger an immediate request sent to a vendor. For example, if the user specifies 5 5 5 in the *SMS status request periods* parameter, the SMS switch will request the status from the vendor three times every 5 seconds (or less than three times if an expected status is received earlier). The same parameter can be set in an HTTP vendor channel, which has priority over the System setting. If both the channel and System settings are left empty (*null*), no request will be sent to the vendor. See also the [Alaris YouTube](#) video
- *Set 'Dip HLR' as enabled by default (0 - no, 1 - yes)*: when the value is 1, the *Dip HLR* checkbox is selected by default in the *Add* panel of the [Carriers\Products](#)^[103] page for SMS products
- *Simulation test password*: password of the channel used for sending test messages (from the [SMS\Routing\Simulation\Send SMS](#)^[326] tab). For correct operation at least one channel with the *Auto*

type must have a username and password matched with the parameters *Simulation test password* and *Simulation test user name*

- *Simulation test user name*: username of the channel used for sending test messages (from the [SMS\Routing\Simulation\Send SMS](#) ³²⁶ tab). For correct operation at least one channel with the *Auto* type must have a username and password matched with the parameters *Simulation test password* and *Simulation test user name*
- *Switch IP list for test message sending*: IP addresses of switches used when sending a test SMS in [SMS\Routing\Simulation\Send SMS](#) ³²⁶ (in case of several switches). If set to *null*, the *Switch IP* cannot be chosen in the *Send SMS* tab
- *Switch URL template for SMS test send*: URL of the switch used for test SMS generation in [SMS\Routing\Simulation\Send SMS](#) ³²⁶. Test messages may be generated directly from the switch or from the billing interface by creating a channel, linking it to POI and a certain product, and can be terminated if the System manages to find possible termination. The parameter is set by Alaris engineers and must not be changed by a user
- *Switch URL template for Campaign Portal*: URL of the switch used for message sending from Alaris Campaign Portal .The parameter is set by the Alaris technical support team and must not be changed by users
- *Campaign Portal trusted IP list (separated by comma)*: list of all IP addresses (local - or if not available, public) of the server scheme. The parameter is set by the Alaris technical support team and must not be changed by users

4.8.9 SMS Test

SMS Test	
CSG API login	null
CSG API password	*****
CSG SMSRoute ID	null
CSG URL	null
CSG test result (1 - system calculated, 2 - taken from CSG)	1
Manual SMS send URL	http://host:port/api?command=submit&us...
Number of tests to consider for feature generation	10
Period of tests to consider for feature generation	30
Prefix-based route testing channel ID	null
Remote365 SMS send URL	null
Remote365 control URL	null
Remote365 password	*****
Remote365 user name	null
Route testing client	null
SMS test max attempts count	10
TelQ app id	0
TelQ app key	*****
TelQ test result timeout, min	60
Test client products	null
TestMySMS URL	http://portal.testmysms.com:8080/SMSCli...
TestMySMS password	*****
TestMySMS user name	null
TestMySMS vendor	null

SMS Test

- *CSG API login, CSG API password, CSG SMSRoute ID, CSG URL*: parameters that serve to configure the CSG Assure service for SMS testing (for detailed configuration refer to [SMS\Test system\Using CSG Assure service to test SMS delivery](#)^[349])
- *CSG test result*: when set to 2, the test result is taken from the CSG platform. When set to 1, the test result is calculated based on the System logic (the test result is *FAIL* if the *Sender ID* was changed or the *UITestStatusID* field value is other than 100)
- *Manual SMS send URL*: link for sending test messages through the Manual test platform, configured by the Alaris technical support team
- *Number of tests to consider for feature generation*: number of tests sufficient for automatic generation of routing features in [SMS\Routing\Routing features](#)^[290] (the following routing features are generated: *FalseDLR, OrigNotKept, TextIntegrity*)
- The default value of the *FalseDLR* feature will be changed to *Yes* if at least one of the checked tests is not in the *DELIVRD* status (the *Delivery status* column) - in case the *Manual* test System is used. The *FalseDLR* of other systems will be changed to *Yes* if the delivery report received from the vendor and the delivery returned from the test System are different (for example, the vendor returned *DELIVRD* while the test System returned *UNDELIV*):

- The default value of *OrigNotKept* will be *No* if sender IDs were not modified in all tests (*Sender status* column)
- The default value of *TextIntegrity* will be set as *No* if test texts were modified (*Text diff* column - relevant only for the TestMySMS platform)
- The parameter works along with the setting *Period of tests to consider for feature generation* (see below) - for example, if *Number of tests to consider for feature generation* is 10 and *Period of tests to consider for feature generation* is 1 day, then only the last 10 tests for the past 24 hours will be taken into account. If there are only 5 tests for the period, the result will be based on them. Note that the System job SMS_AUTO_FEATURES must be enabled (*System jobs* interface). It is disabled by default
- The parameter works along with the setting *Period of tests to consider for feature generation* (see below) - for example, if *Number of tests to consider for feature generation* is 10 and *Period of tests to consider for feature generation* is 1 day, then only the last 10 tests for the past 24 hours will be taken into account. If there are only 5 tests for the period, the result will be based on them. Note that the System job SMS_AUTO_FEATURES must be enabled (*System jobs* interface). It is disabled by default
- *Period of tests to consider for feature generation*: period (in days) of tests sufficient for automatic generation of routing features in the [SMS\Routing\Routing features](#)^[29b] interface (the following routing features are generated: FalseDLR, OrigNotKept, TextIntegrity). The parameter works together with the setting *Number of tests to consider for feature generation* (see above) - for example, if *Number of tests to consider for feature generation* is 10 and *Period of tests to consider for feature generation* is 1 day, then only the last 10 tests for the past 24 hours will be taken into account - if there are only 5 tests for the period, the result will be based on them
- *Prefix-based route testing channel ID*: serves to specify the channel ID. Once a message is received from this channel, the destination number will be searched for the # symbol, and the digits preceding it will be used as the POI ID to which the message must be sent. No routing will be performed for the message. See also the [Alaris YouTube](#) video
- *Remote365 SMS send URL, Remote365 control URL, Remote365 password, Remote365 user name*: parameters that serve to configure the remote365 service for SMS testing (for detailed configuration refer to [SMS\Test system\Using remote365 to test SMS delivery](#)^[34b]). The parameters are configured by the Alaris technical support team
- *Route testing client*: ID of the carrier that has channels configured for the test systems ([SMS\Test system](#)^[33b]). Change of the parameter require either switch restart or change of the test channel (usually the configuration is made by the Alaris technical support team)
- *SMS test max attempts count*: number (integer) of attempts to send the test message (attempts are made until the number is reached or delivery status is received from the test platform). Note that the first attempt is resent in a minute, the second - in 2 minutes, the 3rd - in 4 minutes, etc (the delay is increased exponentially)
- *TelQ App ID, TelQ App key*: parameters that serve to configure the TelQ service for SMS testing (for detailed configuration refer to [SMS\Test system\Using TelQ to test SMS delivery](#)^[34b])
- *TelQ test result timeout, min.:* timeout to wait for the response of the TelQ test platform about the test status. Note that the check is made together with *SMS test max attempts count*. For example, if the count is 5 and the timeout is 60 minutes, test rejection will occur on the 15th minute - and since the timeout value is not reached, the test will be considered failed. However if the count is 7, the

rejection will happen on the 63rd minute (in case all attempts are unsuccessful) and the timeout is reached

- *Test client products*: list of products that are considered test products (*Traffic type* will be displayed as *Test* in [SMS\Analytics](#)^[213]) for these products
- *TestMySMS URL*: links for sending test messages through the *TestMySMS* test platform, configured by the Alaris technical support team
- *TestMySMS password* and *TestMySMS user name*: login and password used to access the TestMySMS platform
- *TestMySMS vendor*: the name of the vendor as specified in the TestMySMS platform (for detailed configuration refer to [SMS\Test system\Using TestMySMS to test SMS delivery](#)^[344])

4.8.10 SMS analytics

SMS analytics	
Analytics calculation process count	4
Analytics first currency	EUR
Analytics second currency	USD
Analytics third currency	RUB
Auto threshold calculation (0 - no, 1 - yes)	1
Calculate analytics total depending on VPD	1
Day cube partition count	90
Default Analytics view	SRC_CARRIER
Delivery interval ranges (comma-separated, seconds)	5,15,60,300
Hour cube partition count	800

SMS analytics

- *Analytics calculation process count*: defines how many processes will be used for analytics calculation (concurrent threads). If the setting is empty or 0, the number of sessions is calculated based on the current System load. Any positive integer value is allowed for specification (as well as 0) - note that the maximum is 20 (it is possible to specify a larger value but this will affect the System operation)
- *Analytics first currency*: currency used in [SMS\Analytics](#)^[213] (can be different from the System currency) for columns like *Margin*, *Revenue*, *Cost*, *HLR cost*. The parameter can be changed by the Alaris technical support team. Note that cube recalculation is required to apply the change. The exchange rate must be defined in the [Reference books\Currency exchange rates](#)^[171] interface
- *Analytics second currency*: currency used in [SMS\Analytics](#)^[213] (can be different from the System currency). Note that cube recalculation is required to apply the change. Can be null (no additional columns will be added to *Analytics* in this case). The exchange rate must be defined in the [Reference books\Currency exchange rates](#)^[171] interface
- *Analytics third currency*: currency used in *Analytics* (can be different from the System currency). Note that cube recalculation is required to apply the change. Can be null (no additional columns will be added to *Analytics* in this case). The exchange rate must be defined in the [Reference books\Currency exchange rates](#)^[171] interface
- *Auto threshold calculation (0 - no, 1 - yes)*: when the value is 1, the cube update thresholds (System settings *Stats calculation threshold (EDR/day; EDR/hour; EDR/min; EDR/month; EDR/week)* are

calculated automatically once the current day cube has been successfully updated. The thresholds are calculated on the following conditions:

- Min threshold: 150% of the average EDR volume per minute
- Hour threshold: 30% of the average EDR volume per hour
- Day threshold: EDR volume for the first eight hours of the day
- Week threshold: 10% of the average EDR volume per week
- Month threshold: 10% of the average EDR volume per month
- *Calculate analytics total depending on VPD*: possible values are 0 (disabled) and 1 (enabled). In case of 1, analytics *Total* row will be calculated and shown in accordance with permissions configured for a user on the [Administration\Users](#) tab. Note that some traffic may not be taken into account (for example, if the user has permission to check data of client X and vendor Z but is restricted to check data of vendor Y, the traffic passed from client X to vendor Y will not be calculated for the *Total*)
- *Day cube partition count*: number of daily cubes stored in the System; in other words, a period of time (in days) during which the System retains aggregated statistics arranged by daily cubes. Since increasing of the parameter requires additional server space (on databases), it can be modified only by the Alaris technical support team
- *Delivery interval ranges (comma-separated, seconds)*: serves to set up to 5 time intervals (in seconds). Delivery reports are distributed between the intervals for more precise calculation of average delivery delay (ADD). Messages will be shown in the columns *Delivered within interval 1...5* in [SMS\Analytics](#). To edit the parameter, contact the Alaris technical support team and communicate the code BZ22968. See also the [Alaris YouTube](#) video
- *Default Analytics view*: serves to configure the statistics layer that is opened by default in the [SMS\Analytics](#) interface. The default value is SRC_CARRIER (*Client* layer). For example, the value CALLED_COUNTRY allows checking the data starting from *Country*
- *Delivery interval ranges (comma-separated, seconds)*: serves to set up to 5 time intervals (in seconds). Delivery reports are distributed between the intervals for more precise calculation of average delivery delay (ADD). Messages will be shown in the columns *Delivered within interval 1...5* in [SMS\Analytics](#). To edit the parameter, contact the Alaris technical support team and communicate the code BZ22968. Note that recalculation of analytical cubes is required to apply the change. For example, if the value is 5,15,60,180, the analytics columns will show:
 - *Delivered within interval 1* - number of delivery reports that were received within the interval 0-5 seconds after message sending to the vendor side (the right boundary is not included)
 - *Delivered within interval 2* – the interval is 5-15 seconds
 - *Delivered within interval 3* – the interval is 15-60 seconds
 - *Delivered within interval 4* – the interval is 60-180 seconds
 - *Delivered within interval 5* – the number of delivery reports that were received in 3 minutes and later
- *Hour cube partition count*: number of hourly cubes stored in the System; in other words, a period of time (in hours) during which the System retains aggregated statistics arranged by hourly cubes. Since increasing of the parameter requires additional server space (on databases), it can be modified only by the Alaris technical support team

- *List of SMS products which margin is set to 0 in analytics*: SMS ID of SMS products (comma-separated – 2,000 symbols are allowed) that must be excluded from margin analysis (their margin is displayed as 0 in [SMS\Analytics](#)^[213]). This parameter is used when the rates must be ignored in analytics – for example, when the System owner uses internal equipment for processing SMS messages, which makes rates and margin data irrelevant. In order to apply the changed parameter to processed traffic, analytical cubes must be recalculated
- *Minute cube partition count*: number of minute cubes stored in the System; in other words, a period of time (in minutes) during which the System retains aggregated statistics arranged by minute cubes. Since increasing of the parameter requires additional server space (on databases), it can be modified only by the Alaris technical support team
- *Month cube partition count*: number of monthly cubes stored in the System; in other words, a period of time (in months) during which the System retains aggregated statistics arranged by monthly cubes. Since increasing of the parameter requires additional server space (on databases), it can be modified only by the Alaris technical support team
- *Recalculate current day stats at, hours (0-23, 1-fold)*: forced recalculation of day statistics at the specified hour (valid values are integers from 0 to 23). Several values can be specified (comma-separated), e.g.: 1,15,22 (daily cubes will be recalculated every day at 01:00, 15:00, 22:00 irrespective of the calculation threshold). In case *null* is specified, cube recalculation will happen every time when the *Stats calculation threshold (EDR/day)* is reached
- *Recalculate current hour stats at, mins (0-50, 10-fold)*: forced recalculation of hour statistics at the specified minute of the hour (valid values are 0, 10, 20, 30, 40 or 50). Several values can be specified (comma-separated), e.g.: 10,50 (hourly cubes will be recalculated every hour on 10th and 50th minutes irrespective of the calculation threshold). In case *null* is specified, cube recalculation will happen once the *Stats calculation threshold (EDR/hour)* is reached
- *SMS statistics telescopic mode*: when enabled, the interface shows:
 - the past two hours (current and previous) calculated using minute cubes on the fly
 - the current day calculated using hour cubes plus the past two hours calculated using minute cubes on the fly
 - the current month calculated using daily cubes; the current day of the month is calculated using hour cubes

When disabled (0), click *Telescopic view* in the [SMS\Analytics](#)^[213] interface (available only if the user has the *Telescopic mode* permission granted) to apply the same logic. To disable the Telescopic view, click on the control again
- *Show aver. delivery delay in seconds (0 - no, 1 - yes)*: when the value is 1, the average delivery delay is shown in seconds (by default it is displayed in minutes)
- *Stats calculation delay, minutes (day/hour/min/month)*: the delays configured for each time increment (minute, hour, day, week, and month) to allow statistics calculation even if the thresholds configured in *Stats calculation threshold* settings for corresponding type of cubes have not been reached. For example, the value 45 in the parameter *Stats calculation delay, minutes (day)* means that the statistics for a daily cube will be calculated in 45 minutes after EDR import for the day takes place even if the value of *Stats calculation threshold (EDR/day)* is not reached. Note that it is not recommended to decrease the values without consulting the Alaris technical support team first since it leads to almost constant recalculation of the same data (in case of increase, the cubes may be calculated too slowly and the data will not be shown in the *Analytics* interface). Additionally please

note that all values are calculated automatically based on daily traffic volume (if the setting *Auto threshold calculation* is set to 1)

- *Stats calculation threshold (EDR/day, EDR/hour, EDR/min, EDR/month, EDR/week)*: number of EDRs per day/hour/minute/month necessary to launch next cube recalculation. For example, if *Stats calculation threshold (EDR/day)* is set to 100, the corresponding daily cube will be recalculated as soon as more than 100 new EDRs are imported for this day
- *Stats calculation delay, minutes (hour minor)* and *Stats calculation minor threshold (EDR/hour)* are intended to decrease the number of hour cube recalculations (for example caused by late delivery reports). An hour cube will be placed to queue for recalculation:
 - after the period set in the parameter *Stats calculation delay, minutes (hour minor)* if the number of newly inserted EDRs is less than *Stats calculation minor threshold (EDR/hour)*
 - after the period set in *Stats calculation delay, minutes (hour)* if the number of newly inserted EDRs is greater than *Stats calculation minor threshold (EDR/hour)* but less than *Stats calculation threshold (EDR/hour)*
 - immediately if the number of newly inserted EDRs is greater than *Stats calculation threshold (EDR/hour)*

If *Auto threshold calculation* is set to 1, *Stats calculation minor threshold (EDR/hour)* is calculated as *Stats calculation threshold (EDR/hour) / 50*

- *Traffic details days count*: number of days to store the financial statistics in the System. Since increasing of the parameter requires additional server space (on databases), it can be modified only by the Alaris technical support team
- *Week cube partition count*: number of weekly cubes stored in the System; in other words, a period (in weeks) during which the System retains aggregated statistics arranged by weekly cubes. Since increasing of the parameter requires additional server space (on databases), it can be modified only by the Alaris technical support team

4.8.11 SMS rates

SMS rates	
Blocked networks markers	No,False,Blocked,0,close
Default network markers (client)	-1, -,0,999,9999,---,000
Default network markers (vendor)	-1, -,0,999,9999,000
Defragment SMS rates	1
Effective from date for same (0 - real, 1 - export date)	1
Fragmented rates import effect (0 - remove further rates, ...)	0
Ignore rates closed N days ago	7
List of MCCMNCs to be excluded from export	999
List of MCCs with 3-digit MNCs	262,302,310,311,312,316,330,334,338,34...
List of net names to ignore MNC	default,All networks
MCCs from the price lists to be imported	null
Maximum rate analysis depth (days)	600
Period to consider effective date as being too far in the past	11111
Price values to be considered as blocked	+
Rate changes auto send hour	13
Rate export routing feature inheritance (0 - no, 1 - yes)	1
Rate inheritance mode (0 - longest match at child, 1 - glo...)	1
Rate rounding precision (displaying)	4
Rate rounding precision (storing)	4
Symbols ignored in rate field	§€а-я
Update rate notes for existing rates (0 - no, 1 - yes)	1

SMS rates

- Blocked networks markers:** a list of keywords (comma-separated) used as markers of blocked networks in import of rate sheet files. If the rate sheet file has the *Network status* column and one of the keywords is found in the file for any rate, the Rate note field for this rate will have the *Blocked* value. A vendor product with a blocked rate for the MCCMNC will not take part in routing. If the message is received from a client product and a blocked rate is selected, the message will be rejected. If the price contains both the *Net status* and *Rate note* columns, *Net status* takes priority over the *Rate note* column
- Default network markers (client/vendor):** a comma-separated list of characters that should be ignored when parsing the MNC and/or e.212 column. The parameter is set separately for the client and vendor. It is helpful with price lists that contain placeholders (for example, space, dash or 9999) instead of empty value in the MNC/e.212 field when offering a flat country rate. The default value is "-1, -" - space is included. If the value contains 0, values like 000 will be removed during rate import. Learn more about this feature in [Alaris YouTube video](#)
- Defragment SMS rates:** possible values are 0 and 1 (0 - disable rate defragmentation, 1 - enable, default value is 1). Defragmentation means merging rates with the same price in case the *End date* of one rate is equal to the *Start date* of another. The logic is as follows (if the setting is 1). Suppose there is a rate 0.1 for MCCMNC 250001 with the period 2019.01.01 00:00:00 - 2019.01.10 00:00:00. If the rate 0.1 for 250001 is added (*Add rate* button) with the period 2019.01.10 00:00:00 - 2100.01.01 00:00:00, a single unified rate 0.1 will be created as a result for 2019.01.01 00:00:00 - 2100.01.01 00:00:00. If the setting is 0, two rates with periods 2019.01.01 00:00:00 - 2019.01.10

00:00:00 and 2019.01.01 00:00:00 - 2019.01.10 00:00:00 will be present. If rates contain different rate notes, two rates will be created irrespective of the parameter value

- *Effective from date for same (0 - real, 1 - export date):* when the value is 1, the *Effective from date* is replaced with the task *Start date* for rates that were not changed during rate export, if the *Export type* parameter has the value *changes pending at* or *rates effective at*
- *Fragmented rates import effect (0 - remove further rates, 1 - cut into existing rates):* by default the value is 0. When set to 1, the following logic will be applied. Suppose there is a rate with the period 2019.01.01 00:00:00 - 2100.01.10 00:00:00. Once a rate for the same MCCMNC and the price is imported (period of the new rate is 2019.01.10 00:00:00 - 2019.02.01 00:00:00), there will be two periods for the rate: 2019.01.01 00:00:00 - 2019.02.01 00:00:00 and 2019.02.01 00:00:00 - 2100.01.10 00:00:00. The default behavior is to close the period by the end date of the new rate (for this example in case of default behavior the period will be 2019.01.01 00:00:00 - 2019.02.01 00:00:00)
- *Ignore rates closed N days ago:* the setting is intended for optimization of checks performed by routing module(s) while searching for vendor rates. The default value is 7 which means that the routing module will not receive rates with a close date older than 7 days from the database after the module is restarted
- *List of MCCMNCs to be excluded from export:* MCCMNC codes entered in this field will be excluded from any export task. The default value is 999. The *null* value means that all MCC/MCCMNCs will be exported
- *List of MCCs with 3-digit MNCs:* list of MCCs for countries that always use 3-digit MNCs. The list is used to generate the MCCMNC5 column during rate export. MCCs that are not in the list are translated into 5-digit codes if the MNC starts with 0
- *List of net names to ignore MNC:* ignore data from the *MNC* field during rate import ([SMS\Rates\Rate import\Rate sheet parsing](#)^[263]) in case the *Net name* column of the imported file contains one of the values specified in this parameter (comma-separated, case insensitive). The default value is *All networks,default*
- *MCCs from the price lists to be imported:* allows ignoring rates for specific MCC codes from imported rate sheet files. Rates for MCCs that are not specified in the parameter (exact match is used) are not imported. The parameter may come handy if the System owner does not want to use specific MCC rates received from a partner. The default value is *null* (which means that all MCCs will be imported). Find out more about the feature in the [Alaris YouTube video](#)
- *Maximum rate analysis depth (days):* the default value is 60 (days) which means that during rate import in the *Analysis* mode, all rates that were active for the last 60 days for MCCs/MCCMNCs from the sheet will be shown. Suppose there is a rate for MCC 250 in the file with the period 2019.01.01-2100.01.01. If there is another rate in the product for MCC 250 with the close date less than the current date - 60 days, two rows will be shown in the analysis result - the new rate and the past one)
- *Period to consider effective date as being too far in the past:* the default value is 365 (days). Rates with the effective date older than the value specified in the parameter will be ignored during rate import
- *Price values to be considered as blocked (comma-separated):* when the *Rate* column contains a value specified here, a rate with *Rate note: Blocked* is created. Vendor products with a *Blocked* rate for the MCCMNC will not take part in routing. If a message is received from a client product and a blocked rate is selected, the message will be rejected. Values should be separated by comma, the default value is -. If the setting contains 0 as one of the values and if the rate import task has *Do not close empty or zero rates* checkbox enabled, the rows with 0 rates will not be blocked
- *Rate changes auto send hours (comma separated):* sets the hour of the day when the rate changes are sent (configured by the parameter *Send rate change notifications automatically* in [CarriersProducts](#)^[103]). Possible values are from 0 to 23. Several comma-separated values can be

entered (in this case auto rate export will be triggered several times during the day). Tasks are created with the start date equal to the previous hour value from the parameter. If a single value is set, the start date will be equal to the same hour of the previous day. If the parameter is not set (null), no auto export task is created. For example:

1) *Rate changes auto send hours (comma separated): 1,3,5*

If the System task is started at 1:24, the export task is generated with the start date = previous day at 05:00

2) *Rate changes auto send hours (comma separated): 1,3,5.*

If the System task is started at 5:24, the export task is generated with the start date = current day at 03:00

3) *Rate changes auto send hours (comma separated): 13*

If the System task is started at 13:24, the export task is generated with the start date = previous day at 13:00

If during the day the user changes rates for a product that has the parameter *Send rate change notifications automatically* set to any value other than *Do not send*, a new rate export task will be generated at the predefined hour, and the user will be notified accordingly. Note that export tasks (can be reviewed in the [SMS\Rates\Rate export](#)^[257] interface) are created in advance (for example, if the setting is specified as 14 at 13:52, no export task will be created)

- *Rate export routing feature inheritance (0 - no, 1 - yes):* if the option is set to 1, routing features of the parent product will be exported when an export task is created for a child product (if the *Column settings* contain the FEATURE column). Export uses the same logic with parent/child features as for rates: in case there is a feature value for the client product, it will override the parent's value
- *Rate inheritance mode (0 - longest match at child, 1 - global longest match):* flag that controls rate search logic. When set to 1, the System searches for the most detailed rate (in terms of both MCCMNC/dial code/sender MCCMNC) in the parent and child product and uses the most detailed one to charge the client. When set to 0, the System first searches for the child product and if there is no suitable rate (for either MCC or MCCMNC), it searches it in the parent product. The default value is 1. The same setting is available on the product level (which overrides the System parameter)
- *Rate rounding precision (displaying):* number of decimal places for displayed rates
- *Rate rounding precision (storing):* number of decimal places for rates stored in the System
- *Symbols ignored in rate field:* all characters contained in the field will be ignored when parsing the *Rate* column during an import operation. This allows filtering out currency symbols as well as blanks (the default value is '\$€'). Regular expressions are also supported (for example, 'a-zA-Z')
- *Update rate notes for existing rates (0 - no, 1 - yes):* defines whether the imported rates must be updated if the rate record has the same price but a new rate note. The default value is 0. Rates with *same* type will not be updated even if they contain rate notes with values different from the existing ones

4.8.12 SMS routing

SMS rates	
Blocked networks markers	No,False,Blocked,0,close
Default network markers (client)	-1, -,0,999,9999,--,000
Default network markers (vendor)	-1, -,0,999,9999,000
Defragment SMS rates	1
Effective from date for change type «same» (0 - actual, 1 ...	0
Fragmented rates import effect (0 - remove further rates, ...	0
Ignore rates closed N days ago	7
List of MCCMNCs to be excluded from export	999,100
List of MCCs with 3-digit MNCs	262,302,310,312,316,330,334,338,342,34...
List of net names to ignore MNC	All networks,default
MCCs from the price lists to be imported	null
Maximum rate analysis depth (days)	600
Period to consider effective date as being too far in the past	11111
Price values to be considered as blocked	-,0,N/A
Rate changes auto send hour	10

SMS routing

- *Deduct HLR rate from margin (0 - no, 1 - yes):* when enabled, the HLR rate is deducted from the margin (affects margin calculation for both analytics and routing). For concatenated messages the HLR rate is deducted only once
- *Delay between simulations in multi mode (seconds):* defines the delay between simulation tasks if the *Mode* value is *multi* ([SMS\Routing\Simulation](#)^[314]). The default value is 0.5
- *MCC "Rest of the world":* the default value is 777; the respective record is made in the reference book. This record is considered if the price for the full MCCMNC or its MCC cannot be found. For example, when an attempt is sent to a number belonging to the network with MCCMNC 250001 but the product does not contain rates for either 250001 or 250, the price for code 777 (if it is both present and active) will be selected. The parameter is applicable throughout the System, including Alaris Campaign Portal and MO messages. If it is impossible to find a record for an MCC available in the [SMS\Reference books\Short code reference book](#)^[276], the routing module will try to find a record for the MCC defined in the parameter
- *Routes to send:* maximum number of routes that the System can provide for terminating an SMS (applies to the [SMS\Routing\Simulation](#)^[314] interface as well).
- *SMS simulation router list:* list of routers available for selection in the *Router* drop-down list in [SMS\Routing\Simulation](#)^[314]. Routers are added in the format IP address:Port, and must be comma-separated, for example: 66.210.56.183:1750,61.610.58.192:1751. In most cases the setting is changed by the Alaris technical support team
- *SMS simulation username:* the OS username for connection to the routing server to copy the simulation log. The setting is modified when necessary by the Alaris technical support team
- *SMS vendor credit control enabled (1 - yes, 0 - no):* when the value is 1 (default), vendors are blocked after their credit limit is reached. Suppose the agreement parameter *Out credit* is set to 200 which means that the vendor can receive traffic until the vendor balance is greater than 200 (in the

account currency). If the System setting is 1, messages will not be sent to the vendor once the credit limit reached. If the setting is 0, messages will be sent to the vendor (if there is no other restriction)

- *Use choice and rule ID dependent sorting of routes (0 - disable, 1 - enable):* when enabled, the parameter changes the default logic of route sorting (context -> priority -> weight) to rule ID/choice order dependent (context -> priority -> rule ID -> choice order -> weight). If several rules have the same context and same priority, the rule with a higher ID will be processed first. Static choices go first (since they have the greatest weight). The weight of vendor products of dynamic choices are calculated using *Formula* (in case the formula is not specified, it is a random value)

4.8.13 SMS switch

☐ SMS switch

Default vendor overflow buffer size	100
Default vendor window size	100
Delivery waiting period, sec	172000
Ignore registered_delivery for client	1
Low balance account MPS modifier	1
Track MO responses to MT max waiting period, minutes	60
Concatenated messages: All segments submit timeout, sec.	30
Concatenated messages: Delivery waiting period for state...	180
Concatenated messages: Fast response for every segme...	1
Concatenated messages: Reject incomplete messages (0...	1
Concatenated messages: Shift submit time exponentially ...	0

SMS switch

- *Default vendor overflow buffer size:* the default allowed number of SMS in the storage buffer. The parameter is used if the *Vendor overflow buffer size* parameter is not set in [Carriers\SMS channels](#)^[12b]. The default value is 50000 (messages). In case the parameter is not set or set to 0 while *Vendor capacity (sms/sec)* is not empty, when the capacity is reached, messages will be rejected with EDR status BUFFERD_VSLB. Once the buffer threshold is reached, messages will be rejected as well. The maximum value can be calculated based on server specifications (300,000 messages in the buffer require approximately 1 GB of RAM)
- *Default vendor window size:* the default allowed number of pending messages awaiting the vendor's response (submit_sm packets without submit_sm_resp received). The parameter is used if the *Vendor window size* parameter is not set in [Carriers\SMS channels](#)^[12b]. For example, *Window size* set to 10 means that 10 pending messages are possible for the vendor (10 messages without a response from the vendor side to our submit requests). The 11th SMS will be rejected if the vendor does not respond to it within the submit timeout (30 seconds by default) or the vendor does not respond at least to one of the pending messages, and also if the *Default vendor overflow buffer size* is set to 0. Otherwise the message will be placed in buffer. The default value is 30
- *Delivery waiting period, sec:* the period during which delivery reports are expected from the vendor; after that, the reports will be ignored. Note that the parameter does not invoke generation of EXPIRED delivery status once the period is expired. The default value is 172800 seconds (2 days). The maximum value can be defined based on the server parameters (available disk space)
- *Ignore registered_delivery for client:* ignore the value of the registered_delivery flag for the client. If the value is 0 and the client sends registered_delivery = 0, the client will not receive a delivery

report even if the System has received it. If the value is *1*, the client will receive the delivery report irrespective of whether the client requested it or not

- *Low balance account MPS modifier*: the parameter serves to automatically limit the capacity of a carrier based on its account balance. When the *MPS low balance account threshold* is reached, the client MPS will be limited by the value calculated as the actual balance/*Low balance account MPS modifier*. The default value is 1. For example, if the MPS low balance account threshold is 500, the actual balance is 450 and the *Low balance account MPS modifier* is 100, the MPS is calculated as $500/100 = 5$ MPS. This logic will help prevent situations when a partner can send more traffic than its balance allows. If MPS is exceeded, messages will be rejected. Note that the functionality is not applicable to trusted clients (for whom credit limit is set empty). See also the [Alaris YouTube](#) video
- *Track MO responses to MT max waiting period, minutes*: serves to set the delivery waiting period for MO responses. The default value is 1440 (applicable only to MT traffic for client SMS channels with the enabled checkbox *Track MO responses to MTs*)
- *Concatenated messages: All segments submit timeout, sec.*: defines the period in seconds for all the segments of a concatenated message to be received by the switch and processed as single SMS, otherwise the switch processes them like separate submits. The same parameter can be applied on the channel level (in [Carriers\SMS channels](#)^[12b]) - in which case it has priority over the System setting. The default value is 10. Note that the parameter is applied if the System setting *Enable system-wide stateful concatenated messages processing* (0 - no, 1 - yes) is set to 1, the channel setting *Stateful concatenated messages processing* is enabled or the feature is enabled in the internal switch configuration
- *Concatenated messages: Delivery waiting period for stateful processing*: time (in seconds) to wait for delivery reports for segments of the same message. The default value is 86400 seconds. If no DLRs were received, the SMS remains in the SENT status. If DLRs were received for some segments and not received for others, the EXPIRED status is sent to the client for the entire message. If different reports were received for different segments (for example, DELIVRD for some and UNDELIV for other), the UNDELIV status is returned to the client. If the DELIVRD reports were received for all the segments, the DELIVRD status is returned to the client. Note that the parameter is applied if the System setting *Enable system-wide stateful concatenated messages processing* (0 - no, 1 - yes) is set to 1, the channel setting *Stateful concatenated messages processing* is enabled or the feature is enabled in the internal switch configuration

NOTE: Important! The SMS switch checks if the EXPIRED status must be generated every minute, that is, on the 60th second, the 120th second, the 180th second etc. Therefore if a vendor sends a delivery report within the interval, the vendor's report - and not the EXPIRED status - will be sent to the client. For example, if the parameter is set to 70, delivery reports (with the DELIVRD status) are received on the 75th second, and the DELIVRD status will be sent to the client since the check-up will be carried out only on the 120th second.

- *Concatenated messages: Fast response for every segment* (0 - no, 1 - yes): specifies if successful submit responses (for each segment) should be sent to the client before routing takes place. Note that in case no routes are found, UNDELIV reports will be sent out. Allowed values are 0 (disabled, which is default behavior) and 1 (enabled). The same parameter can be applied on the channel level (in [Carriers\SMS channels](#)^[12b]) - in which case it has priority over the System setting. Note that the parameter is applied if the System setting *Enable system-wide stateful concatenated messages processing* (0 - no, 1 - yes) is set to 1, the channel setting *Stateful concatenated messages processing* is enabled or the feature is enabled in the internal switch configuration
- *Concatenated messages: Reject incomplete messages* (0 - no, 1 - yes): when enabled, the System sends failed submit responses if some segments are not received until the timeout set in

Concatenated messages: All segments submit waiting period timeout. The allowed values are 0 (the SMS switch processes an incomplete set of segmented SMS messages as separate ones) or 1 (the SMS switch sends a failed response (ESME_RSUBMITFAIL) to the client and does not process these submits further). The same parameter can be applied on the channel level (in [Carriers\SMS channels](#)^[120]) - in which case it has priority over the System setting. The default value is 0. Note that the parameter is applied if the System setting *Enable system-wide stateful concatenated messages processing (0 - no, 1 - yes)* is set to 1, the channel setting *Stateful concatenated messages processing* is enabled or the feature is enabled in the internal switch configuration

- *Concatenated messages: Shift submit time exponentially (0 - no, 1 - yes):* when enabled, the System adds $2 * \text{segmentNum}$ seconds to the send time in submit EDR (where *segmentNum* is the number of segments of a concatenated message). The parameter solves the message ID+message sent time unique problem if the vendor returns the same message ID for different segments of the message. If set to 0, the message sent time will not be modified in the EDR. By default the parameter is enabled - meaning that a few seconds will be added to the timestamp. Note that the parameter is applied if the System setting *Enable system-wide stateful concatenated messages processing (0 - no, 1 - yes)* is set to 1, the channel setting *Stateful concatenated messages processing* is enabled or the feature is enabled in the internal switch configuration

4.8.14 Security

Security

Allow password re-use	0
Allowed login attempts after password expiry	5
Minimum digit count in password	0
Minimum letter count in password	0
Minimum mixed case letter count in password	0
Minimum non-alphanumeric symbol count in password	0
Minimum password length	8
Non-alphanumeric password symbols	!@#5%^&*()-+=.,;_
Password expiry period, days	60
Password expiry reminder (days)	3
Password history period, days	90

Security

The *Administration\System settings\Security* section serves to control the password generation and storing policies using the following settings:

- *Allow password re-use:* if set to 0, users are not allowed to use previous passwords when changing a password ([Administration\Users](#)^[97] >> *User password change*)
- *Allowed login attempts after password expiry:* once the password expiration date has come, the user will still be able to login N times before changing the password, where N is defined by this parameter
- *Minimum digit count in password/Minimum letter count in password/Minimum mixed case letter count in password/Minimum non-alphanumeric symbol count in password:* minimum number of digits/letters/mixed-case letters/non-alphanumeric symbols to be used in the new password correspondingly. Integer values are allowed. If set to *null*, the default value will be used (3 digits/0 letters/2 mixed case letters/2 non-alphanumeric symbols correspondingly). If, during password

change, the user inserts fewer symbols than is specified in the parameter, the following warning will appear:

Password does not comply with security policy or was already used. The password must contain:
at least 3 character(s)
at least 3 digit(s)
at least 0 letter(s)
at least 0 mixed case letter(s)
at least 0 symbol(s) from !@#\$%^&()-+=.,;*

NOTE: The parameter applies to the main web interface and the Wholesale portal. The list of non-alphanumeric symbols are defined in the System parameter *Non-alphanumeric password symbols*.

- *Minimum password length:* minimum password length. Integer values are allowed (maximum is 60). If set to *null*, the default value will be used (8 symbols). The parameter applies to the main web interface and the Wholesale portal

NOTE: The same mechanism of password generation applies to SMS channel passwords (*Generate* button in the [Carriers\SMS channels](#)^[12b] interface). SMPP specification 3.4 allows no more than 9 symbols for a password. Therefore, if the setting is greater than 9 and the user generates a password for an SMS channel ([Carriers\SMS channels](#)^[12b] >> *Password* >> *Generate*), the password length will be 9 symbols. Additionally, the generation algorithm will try to fulfill the requirements of the minimum number of letters/digits/non-alphanumeric symbols

- *Non-alphanumeric password symbols:* list of symbols allowed for being used in the password other than digits and letters. Integer values are allowed. If set to *null*, the default value will be used (2 symbols). Note that the parameter applies to the main web interface and the Wholesale portal
- *Password expiry period, days:* default number of days after which the password expires. By default the *Expiry date* ([Administration\Users](#)^[9b]) is set to the current date + *Password expiry period, days*. The minimum value is 1, the maximum is 10000. If the user tries to login to the web interface / Alaris Campaign Portal / Wholesale portal with an expired password, a warning appears
- *Password expiry reminder (days):* number of days until the user starts receiving warning letters about password expiration. Note that the System job *BAS_CHECK_EXPIRE_PASSWORD* must be enabled
- *Password history period, days:* number of days during which the passwords used earlier are stored. For example, if *Allow password re-use* is set to 0 and the user tries to change the password to the same value that is stored in the history (suppose that the old password was used earlier than *N* days ago, where *N* is *Password history period, days*), a warning appear

4.8.15 Telegram

The System allows sending report results to Telegram. This section serves to configure interaction with the Telegram service and contains the following parameters:

Telegram	
Proxy ([TYPE] [IP]:[PORT]). Possible types: DIRECT, SO...	null
Telegram bot token	null

Telegram

- *Proxy ([TYPE] [IP]:[PORT])*. Possible types: *DIRECT*, *SOCKS*, *HTTP*: proxy type in order to send reports from the *Reports* interface to Telegram. Default value (null) means that no proxy is used for sending. Example: *SOCKS 212.83.147.101:12850*
- *Telegram bot token*: bot token for sending reports (from the [Reports](#) interface) to Telegram. To enable this, a bot must be registered (for example, *SendAlertsBot*) at <https://telegram.me/BotFather> - once the registration is completed, a token will be issued. The token must be inserted in the *Telegram bot token* parameter and a chat with the bot (*@SendAlertsBot*) must be created. The chat will serve to receive automatic messages. The default value is null (the functionality is disabled)

To configure interaction with the Telegram service, proceed as follows:

0. Set the appropriate values in the System parameters detailed above
1. Register a bot (service on behalf of which notifications will be sent) at <https://telegram.me/BotFather>. For example, *SendAlertsBot*
2. Remember the bot ID
3. Create a chat with the bot (*@SendAlertsBot*). The chat will be used for receipt of automatic messages
4. The ID of the chat (which can be checked at https://telegram.me/get_id_bot) can be used in reports marked as *Periodic*

As Telegram does not support display of tables, only the content of the dedicated field of a preset will be sent to the messenger. The full report content can be emailed to predefined email addresses.

4.8.16 Trading tools

The section contains parameters related to [Swap deals](#).

Trading tools	
Percentage of cubes allowed to be invalidated for swap d...	80
Repeated alerts buffering interval, min	60
Swap deals stats currency	EUR
The list of excluded vendors	null

Trading tools

- *Percentage of cubes allowed to be invalidated for swap deals*: the maximum percent of analytical cubes for the period covered by a swap deal which may be under recalculation. When the threshold is reached, the swap deals stats is not updated. For example, if the option is set to 10, this means that for a deal 10% of cubes can be in the invalid state (can be recalculated). If the percentage is greater, the notification '*Swap stats cannot be updated at the moment: percentage of invalidated cubes is higher that the System threshold*' will appear. Note that the statistics is based on hour cubes for the current day (24) + daily cubes for other days (which are included to the period of a deal). For example, if a deal is for a month (January) and the current date and time is 16/01 15:01, 40 cubes in total (16 daily cubes + 24 hour cubes) are taken into account (so 10% is 4 cubes in *Must be recalculated* state is the maximum number for the deal to show 'actual' stats)
- *Swap deals stats currency*: serves to configure the currency in which swap deals statistics must be calculated. If set to *null*, the System currency will be used. See also the [Alaris YouTube video](#)

4.9 Template manager

The *Administration\Template manager* page allows creating templates for various document types generated by the System – invoices, rate export files, invoice letters etc.

The page is divided in two panels. The left panel is a table of templates. The table contains the following information:

Template	Contract company	Account	Product type	Template direction	Products
All	Breaking bad	1-To-Allzz, EUR			
 Balance alert letter (html)	All	All	-	-	-
 Blended routing rule change letter (html)	All	All	-	-	-
 Blended routing rule deactivation letter (html)	All	All	-	-	-
 CDR Recalculating results letter (html)	All	All	-	-	-
 CDR Rerating results letter (html)	All	All	-	-	-
 CDR export letter (html)	All	All	-	-	-
 Credit alert letter (html)	All	All	-	-	-

Template manager

- *Template*: description of the template and link for downloading the document in XLS, PDF or HTML format
- *Contract company*: the legal entity of the System owner on behalf of which it works with a partner
- *Account*: carrier account(s) the selected template is used for (if *Default* – the template is used for all carriers except for those who have separate templates; *Default* templates cannot be deleted)
- *Product type*: *US Domestic* or *International* (for voice) or *SMS*
- *Comments*: arbitrary notes
- *Last updated*: the date of the template latest update

The button  in the first column activates the *Change template* view on the right. The button  deletes the record. The *Change template* view allows configuration of the following parameters:

- *Template type*: type of the template (select from the drop-down list)
- *Contract company*
- *Accounts*: select carrier account(s) the template is used for
- *Template direction*, available for template types *Invoice*, *Invoice details*, *Invoice letter*, and *Invoice letter (separate letter for usage stats option)*. Possible values include:
 - *All*
 - *Client*
 - *Vendor*

Find out more about the feature in the [Alaris YouTube video](#).

NOTE: When the System selects the template for generation of a document, the *Template direction* field has priority over the fields *Account* and *Contract company*. Suppose two templates of the type *Invoice* exist in the

System, #1 with *Account* = All, *Template direction* = Client, and #2 with *Account* = "Specific account", *Template direction* = All. The System will select template #1. However, if template #2 has the *Template direction* = Client (or Vendor, as appropriate), the System will select template #2.

- *Products*: multipicker that allows assigning the templates to several products (available for the following template types: *SMS rate export*, *SMS rate update letter*)
- *File name mask*
- *Letter subject*: active only for letter templates. The parameter defines the email subject. It is possible to use markers here
- *Letter body*: active only for the letter templates. The parameter defines the email text. It is possible to use markers here
- *Product type*: select SMS
- *Template file*: select a file to upload

Change template

Template type*:

Contract company:

Account filter:

Other items		Selected items
PocoDinero Enterprises, EUR (Account I...	>>> > < <<<	ALARIS TEST, USD (Account ID: 11015)
PocoDinero Enterprises, USD (Account I...		

Product type:

<input type="checkbox"/> Product type
<input type="checkbox"/> Correction
<input type="checkbox"/> International
<input checked="" type="checkbox"/> SMS
<input type="checkbox"/> US domestic

Template file:

Select a new file to update the current template

Change template

When through with defining the parameters, click  Save to confirm or  Cancel to discard the settings.

To add a new template to the System click  Add template and open the *Add new template* view. The configurable parameters are the same as in the *Change template* view.

Add new template

Template type*:

Contract company:

Accounts:

Letter subject*:

Letter body:

Dear Sirs,

This is to notify that the current balance of the [CompanyName] account has got below [BalanceOrCreditUsage]. Please top up your account to avoid service interruption.

The current balance of your account is [Balance].

Your credit limit is set to [Credit].

Best regards,
The [SystemOwnerName] Team

Comments:

Add template view

Below is a list of available markers for the templates.

4.9.1 Markers

Markers are alphanumeric strings in square brackets that are used in document templates as placeholders of information. Below is a list of markers supported by the System.

NOTE: All amounts can be shown with a reversed sign with the help of the *RevSign* suffix (negative amounts shown as positive and vice versa). For example, when the invoice amount is -100, the marker [EstimatedAmount] is replaced with -100 while [EstimatedAmountRevSign] is replaced with 100.

Invoice markers (cover letter and attachment)

General parameters

[AccountManager] - the account manager's first and last name

[AccountManagerFull] - the account manager's first and last name (as of the invoice issue date)

[AgrBankInfo] - content of the *Bank info* field in [Carriers\Agreements](#) ^[11]

[AgrCode] – agreement code

[BankAccount] - the account number

[BankName] - the bank name

[BankRecipientName] - the recipient's name

[BankSwiftCode] - the SWIFT code

[BillingManager] - billing manager first and last name

[BillingManagerEmail] - billing manager email address

[BillingManagerMobilePhone] - billing manager mobile phone number

[BillingManagerOfficePhone] - billing manager office phone number

[BillingManagerSignature] - billing manager signature

[CAR_ID] – carrier's identifier (same as [CompanyId])

[CAR_NAME] - carrier's name (same as [CompanyName])

[CompanyAddress] – company's address from the [Carriers](#)^[99] interface

[CompanyId] – carrier's identifier

[CompanyName] - carrier's name

[CompanyRegisteredName] – name of the partner's company as specified in the parameter *Company registered name* in [Carriers\Agreements](#)^[117]

[CompanyVAT] – partner's personal tax reference number

[CurrencyCode] – currency

[CurrencyName] - currency display name from [Reference books\Currency exchange rates](#)^[177]

[CurrencySymbol] - symbol of the currency in which the invoice is generated. By default only the USD symbol is supported. To include other symbols contact the Alaris technical support team and communicate the code BZ29982. See also the [Alaris YouTube](#) video

[InvoiceId] – invoice identifier

[InvoicePeriod] – invoice period

[InvoicePeriodLong] – invoice period with time indication

[InvoiceSysPeriod] – invoice period in the System owner's time zone

[DetailsFileName] – name of the PDF file with traffic details

[FileName] – PDF file name

[InvDueDays] - value of the parameter *In payment period, days* from [Carriers\Agreements](#)^[117]

[InvNotes] - marker used in the *Invoice* and *Credit note* templates. It is substituted by the text filled in the template's *Comments* field.

[InvoiceCurrentOffset] - invoice timezone offset to GMT in the format: +/-HH:MI

[InvoiceDate] – invoice issue date

[InvoiceDateInWords] - Invoice issue date with month written in words

[InvoiceDateInWordsIn<LANGUAGE>] - Invoice issue date with month written in words in <LANGUAGE>

[InvoiceDueDate] - invoice due date

[InvoiceDueDateInWords] - invoice due date with month written in words

[InvoiceDueDateInWordsIn<LANGUAGE>] - invoice due date with month written in words in <LANGUAGE>

[InvoiceId] - invoice system ID

[InvoicePeriod] - invoice period in partner timezone

[InvoicePeriodInWords] - invoice period with month written in words

[InvoicePeriodInWordsIn<LANGUAGE>] - invoice period with month in written words in <LANGUAGE>

[InvoicePeriodLong] - invoice period in partner timezone with hours, minutes and seconds specified

[InvoicePeriodLongInWords] - invoice period in partner timezone with hours, minutes and seconds specified, with month written in words

[InvoicePeriodLongInWordsIn<LANGUAGE>] - invoice period in partner timezone with hours, minutes and seconds specified, with month written in words, in <LANGUAGE>

[InvoiceRefNumber] – invoice reference number

[InvoiceRegDate] - invoice confirmation date

[InvoiceRegDateInWords] - invoice confirmation date with month written in words

[InvoiceRegDateInWordsIn<LANGUAGE>] - invoice confirmation date with month written in words, in <LANGUAGE>

[InvoiceStartDate] - start date of the billing period

[InvoiceEndDate] - end date of the billing period

[InvoiceSysPeriod] - invoice period is System timezone

[InvoiceSysPeriodInWords] - invoice period is System timezone with month written in words

[InvoiceSysPeriodInWordsIn<LANGUAGE>] - invoice period is System timezone with month written in words, in <LANGUAGE>

[InvoiceTimezone] – name of the time zone according to which the invoice is generated

[OwnerName] – System owner’s company name as set in the parameter Contract company name in [Carriers](#)⁹⁹

[PARAM<PARAM_ID>] - value of a custom parameter for the current document

[POIActivePrefixes] - comma-separated list of currently active POI prefixes

[POIPrefixes] – comma-separated list of POI prefixes pertaining to the account

[PrevPeriodEndDate] - invoice period start date minus 1 day

[ProductDescr] – list of unique product names (comma-separated)

[SingleProductDescr] - if the charge contains a single product, the marker is replaced with the product name; otherwise it is replaced with void

[TaxRate] - when a country-based tax rate is selected, the marker shows the default tax rate from the agreement

[TaxRatesByCountry] - tax rates (with reference to the country) that are different from a rate set in the agreement. For example: 33% - Russian Federation

[YYMMDD] - invoice issue date in format YYMMDD

[YYYYMMDD] - invoice issue date in format YYYYMMDD

[Year] - year of the invoice issue date

[Month] - month of the invoice issue date

[Day] - day of the invoice issue date

Invoice totals

[<CURRENCY>InInvoiceCurrency] - cost of 1 unit of <Currency Code> in System currency

[AgrLegalAddress] - content of the *Legal address* field from [Carriers\Agreements](#) ^[117]

[AmountInWord] – invoice amount written in words

[AmountInWordRevSign] - -1 * [AmountInWord]

[ChargeAmount1] - charge amount in currency 1 with currency code

[ChargeAmount2] - charge amount in currency 2 with currency code

[ChargeAmount3] - charge amount in currency 3 with currency code

[CompanyNameUE] – company name encoded for use in URL

[CurrencyCode1] – name of the currency set by the *Finance first currency* parameter
([Administration\System settings\Financial module](#) ^[45])

[CurrencyCode2] – name of the currency set by the *Finance second currency* parameter
([Administration\System settings\Financial module](#) ^[45])

[CurrencyCode3] - name of the currency set by the *Finance third currency* parameter
([Administration\System settings\Financial module](#) ^[45])

[CurrencyCodeUE] – currency code (e.g. USD, EUR, etc.) encoded for use in URL

[EstAmountInWord] – [EstimatedAmount] written in words

[EstAmountInWordRevSign] - -1 * [EstAmountInWord]

[EstimatedAmount] – estimated amount with currency code

[EstimatedAmount1] - estimated amount in currency 1 with currency code

[EstimatedAmount2] - estimated amount in currency 2 with currency code

[EstimatedAmount3] - estimated amount in currency 3 with currency code

[EstimatedAmountIn<CURRENCY>] - estimated amount in <Currency Code>

[EstimatedAmountNum] – estimated amount without currency code

[EstimatedAmountNum1] - estimated amount in currency 1 without currency code

[EstimatedAmountNum2] - estimated amount in currency 2 without currency code

[EstimatedAmountNum3] - estimated amount in currency 3 without currency code

[EstimatedAmountPlusTax] - estimated amount with tax and currency code (the tax is added if the value of *In/Out tax scheme* in [Carriers\Agreements](#) ^[117] is *Add tax % to estimated amount* or *Document only tax inclusion*)

[EstimatedAmountPlusTax1] - estimated amount in currency 1 with tax and currency code (the tax is added if the value of *In/Out tax scheme* in [Carriers\Agreements](#) is *Add tax % to estimated amount* or *Document only tax inclusion*)

[EstimatedAmountPlusTax2] - estimated amount in currency 2 with tax and currency code (the tax is added if the value of *In/Out tax scheme* in [Carriers\Agreements](#) is *Add tax % to estimated amount* or *Document only tax inclusion*)

[EstimatedAmountPlusTax3] - estimated amount in currency 3 with tax and currency code (the tax is added if the value of *In/Out tax scheme* in [Carriers\Agreements](#) is *Add tax % to estimated amount* or *Document only tax inclusion*)

[EstimatedAmountPlusTaxIn<CURRENCY>] - estimated amount with tax and currency code in <CURRENCY> (the tax is added if the value of *In/Out tax scheme* in [Carriers\Agreements](#) is *Add tax % to estimated amount* or *Document only tax inclusion*)

[EstimatedAmountPlusTaxNum] - estimated amount plus tax without currency code (the tax is added if the value of *In/Out tax scheme* in [Carriers\Agreements](#) is *Add tax % to estimated amount* or *Document only tax inclusion*)

[EstimatedAmountPlusTaxNum1] - Invoice amount in currency 1 plus tax without currency code (the tax is added if the value of *In/Out tax scheme* in [Carriers\Agreements](#) is *Add tax % to estimated amount* or *Document only tax inclusion*)

[EstimatedAmountPlusTaxNum2] - Invoice amount in currency 2 plus tax without currency code (the tax is added if the value of *In/Out tax scheme* in [Carriers\Agreements](#) is *Add tax % to estimated amount* or *Document only tax inclusion*)

[EstimatedAmountPlusTaxNum3] - Invoice amount in currency 3 plus tax without currency code (the tax is added if the value of *In/Out tax scheme* in [Carriers\Agreements](#) is *Add tax % to estimated amount* or *Document only tax inclusion*)

[EstimatedAmountPlusTaxRevSign] - -1 * [EstimatedAmountPlusTax]

[EstimatedAmountPlusTaxRevSign1] - -1 * [EstimatedAmountPlusTax1]

[EstimatedAmountPlusTaxRevSign2] - -1 * [EstimatedAmountPlusTax2]

[EstimatedAmountPlusTaxRevSign3] - -1 * [EstimatedAmountPlusTax3]

[EstimatedAmountPlusTaxRevSignIn<CURRENCY>] - -1 * [EstimatedAmountPlusTaxIn<CURRENCY>]

[EstimatedAmountPlusTaxRevSignNum] - -1 * [EstimatedAmountPlusTaxNum]

[EstimatedAmountPlusTaxRevSignNum1] -1 * [EstimatedAmountPlusTaxNum1]

[EstimatedAmountPlusTaxRevSignNum2] -1 * [EstimatedAmountPlusTaxNum2]

[EstimatedAmountPlusTaxRevSignNum3] -1 * [EstimatedAmountPlusTaxNum3]

[EstAmntPIsTaxRoundedInWordMkd] - estimated amount with tax included in words in the Macedonian language

[EstimatedAmountPlusTaxRounded] - -1 * [EstimatedAmountPlusTaxRevSignRounded]

[EstimatedAmountPlusTaxRevSignRounded] - rounded estimated amount with tax and currency code

[EstimatedAmountRevSign] - -1 * [EstimatedAmount]

[EstimatedAmountRevSign1] - -1 * [EstimatedAmount1]

[EstimatedAmountRevSign2] - -1 * [EstimatedAmount2]

[EstimatedAmountRevSign3] - -1 * [EstimatedAmount3]

[EstimatedAmountRevSignIn<CURRENCY>] - -1 *

[EstimatedAmountRevSignNum] - -1 * [EstimatedAmountNum]

[EstimatedAmountRevSignNum1] - -1 * [EstimatedAmountNum1]

[EstimatedAmountRevSignNum2] - -1 * [EstimatedAmountNum2]

[EstimatedAmountRevSignNum3] - -1 * [EstimatedAmountNum3]

[EstimatedAmountWithoutTax] – estimated amount excluding tax with currency code

[EstimatedAmountWithoutTaxNum] – estimated amount excluding tax, without currency code

[EstimatedAmountWithoutTax1] - estimated amount in currency 1 excluding tax but with currency code

[EstimatedAmountWithoutTax2] - estimated amount in currency 2 excluding tax but with currency code

[EstimatedAmountWithoutTax3] - estimated amount in currency 3 excluding tax but with currency code

[EstimatedAmountWithoutTaxIn<CURRENCY>] - estimated amount in <Currency Code> excluding tax but with currency code

[EstimatedAmountWithoutTaxNum] - estimated amount without tax or currency code

[EstimatedAmountWithoutTaxNum1] - estimated amount in currency 1 without tax or currency code

[EstimatedAmountWithoutTaxNum2] - estimated amount in currency 2 without tax or currency code

[EstimatedAmountWithoutTaxNum3] - estimated amount in currency 3 without tax or currency code

[EstimatedAmountWithoutTaxRevSign] - -1 * [EstimatedAmountWithoutTax]

[EstimatedAmountWithoutTaxRevSign1] - -1 * [EstimatedAmountWithoutTax1]

[EstimatedAmountWithoutTaxRevSign2] - -1 * [EstimatedAmountWithoutTax2]

[EstimatedAmountWithoutTaxRevSign3] - -1 * [EstimatedAmountWithoutTax3]

[EstimatedAmountWithoutTaxRevSignIn<CURRENCY>] - -1 *

[EstimatedAmountWithoutTaxIn<CURRENCY>]

[EstimatedAmountWithoutTaxRevSignNum] - -1 * [EstimatedAmountWithoutTaxNum]

[EstimatedAmountWithoutTaxRevSignNum1] - -1 * [EstimatedAmountWithoutTaxNum1]

[EstimatedAmountWithoutTaxRevSignNum2] - -1 * [EstimatedAmountWithoutTaxNum2]

[EstimatedAmountWithoutTaxRevSignNum3] - -1 * [EstimatedAmountWithoutTaxNum3]

[InvoiceCurrencyIn<CURRENCY>] - cost of 1 unit of System currency in <Currency Code>

[InvoiceDateUE] – invoice issue date encoded for use in URL

[InvoiceRefNumberUE] – invoice reference number encoded for use in URL

[PrepaymentAmountNum] – estimated prepayment total (the least of the two values is used: ([EstimatedAmount] or [PreviousBalanceNum]), without currency indication

[PrepaymentAmount] – [PrepaymentAmountNum] with currency code

[PrepaymentAmountRevSign] - -1 * [PrepaymentAmount]

[PrepaymentAmountRevSignNum] - $-1 * [\text{PrepaymentAmountNum}]$

[PreviousBalance] - account balance at the end of the invoice period, with currency code

[PreviousBalanceNum] – account balance at the end of the invoice period, without currency code

[PreviousBalanceRevSign] - account balance before the start of the invoice period with currency code with reverse sign

[PreviousBalanceNumRevSign] - account balance before the start of the invoice period without currency code with reverse sign

[SumChargeSmsCount] - total amount of SMS

[SumPeriodPayments] - amount of payments received during the invoice billing period

[TaxAmount] - tax amount with currency code

[TaxAmount1] - tax amount in currency 1 with currency code

[TaxAmount2] - tax amount in currency 2 with currency code

[TaxAmount3] - tax amount in currency 3 with currency code

[TaxAmountIn<CURRENCY>] - same as [TaxAmountNumIn<CurrencyCode>] with currency code

[TaxAmountNum] – tax amount without currency code

[TaxAmountNum1] - tax amount in currency 1 without currency code

[TaxAmountNum2] - tax amount in currency 2 without currency code

[TaxAmountNum3] - tax amount in currency 3 without currency code

[TaxAmountNumIn<CURRENCY>] - tax amount in <Currency Code> without currency code

[TaxAmountNumRounded] - rounded tax amount without currency code

[TaxAmountNumRounded1] - rounded tax amount in currency 1 without currency code

[TaxAmountNumRounded2] - rounded tax amount in currency 2 without currency code

[TaxAmountNumRounded3] - rounded tax amount in currency 3 without currency code

[TaxAmountRevSign] - $-1 * [\text{TaxAmountNum}]$

[TaxAmountRevSign1] - $-1 * [\text{TaxAmountNum1}]$

[TaxAmountRevSign2] - $-1 * [\text{TaxAmountNum2}]$

[TaxAmountRevSign3] - $-1 * [\text{TaxAmountNum3}]$

[TaxAmountRevSignIn<CURRENCY>] - $-1 * [\text{TaxAmountIn<CURRENCY>}]$

[TaxAmountRevSignNum] - $-1 * [\text{TaxAmountNum}]$

[TaxAmountRevSignNum1] - $-1 * [\text{TaxAmountNum1}]$

[TaxAmountRevSignNum2] - $-1 * [\text{TaxAmountNum2}]$

[TaxAmountRevSignNum3] - $-1 * [\text{TaxAmountNum3}]$

[TaxAmountRevSignNumIn<CURRENCY>] - $-1 * [\text{TaxAmountNumIn<CURRENCY>}]$

[TaxAmountRevSignNumRounded] - $-1 * [\text{TaxAmountNumRounded}]$

[TaxAmountRevSignNumRounded1] - -1 * [TaxAmountNumRounded1]

[TaxAmountRevSignNumRounded2] - -1 * [TaxAmountNumRounded2]

[TaxAmountRevSignNumRounded3] - -1 * [TaxAmountNumRounded3]

[TaxAmountRevSignRounded] - -1 * [TaxAmountRounded]

[TaxAmountRevSignRounded1] - -1 * [TaxAmountRounded1]

[TaxAmountRevSignRounded2] - -1 * [TaxAmountRounded2]

[TaxAmountRevSignRounded3] - -1 * [TaxAmountRounded3]

[TaxAmountRounded] - rounded tax amount with currency code

[TaxAmountRounded1] - rounded tax amount in currency 1 with currency code

[TaxAmountRounded2] - rounded tax amount in currency 2 with currency code

[TaxAmountRounded3] - rounded tax amount in currency 3 with currency code

[TaxRate] - tax rate (%)

[TotalAmount] - total payable including balance (difference between PreviousBalance and EstimatedAmount, with currency code)

[TotalAmountNum] - total payable including balance (difference between [PreviousBalance] and [EstimatedAmount], without currency code)

[TotalAmountRevSign] - -1 * [TotalAmount]

[TotalAmountRevSignNum] - -1 * [TotalAmountNum]

Parameters processed by urlencode function

[CompanyNameUE] – company name encoded for use in URL

[CurrencyCodeUE] – currency code (e.g. USD, EUR, etc.) encoded for use in URL

[InvoiceDateUE] – invoice issue date encoded for use in URL

[InvoiceRefNumberUE] – invoice reference number encoded for use in URL

NOTE: The urlencode function transforms invoice parameters, replacing the corresponding markers listed in this section into a special format to be used within a URL-link.

Invoice letter body-specific markers

[DocumentLink] – download link to the invoice cover letter

[DetailsLink] – download link to the traffic summary details document

[UILink] - URL link to the System's main web interface

[PortalLink] - URL link to the Partner portal

Charges

[ChargeAmount] – charge amount

[ChargeAmount1] - charge amount in currency 1

[ChargeAmount2] - charge amount in currency 2

[ChargeAmount2] - charge amount in currency 3

[ChargeAmountNum] - charge amount without currency code

[ChargeAmountRevSign] - -1 * [ChargeAmount]

[ChargeAmountRevSign1] - -1 * [ChargeAmount1]

[ChargeAmountRevSign2] - -1 * [ChargeAmount2]

[ChargeAmountRevSign3] - -1 * [ChargeAmount3]

[ChargeAmountRevSignNum] - -1 * [ChargeAmountNum]

[ChargeCurrencyCode] – charge currency

[ChargeDescription] - service name

[ChargeDescrWithProductDescr] - a combination of markers [ChargeDescription] and [ChargeProductDescr]. The marker is replaced by the service name (for example, SMS) + product name (for example, SMS, Wholesale)

[ChargeDirection] - direction of the charge (Payable/Receivable)

[ChargePeriod] – charge period

[ChargeProduct] - charge description (traffic type)

[ChargeProductDescr] - list of products that share the group index pertaining to the charge

[ChargeSysPeriod] – charge period in the System owner's time zone

[ChargeUnit] - unit

[ChargeVolume] - charge volume

[ChargeVolumeRevSign] - -1 * [ChargeVolume]

Charge details in cover letter

[ChargeAggrAmountNum] - aggregated amount of invoice charges

[ChargeDetAmount] – amount

[ChargeDetAmountRevSign] - -1 * [ChargeDetAmount]

[ChargeDetColumn1] – name of the SMS pack purchased in [Alaris Campaign Portal](#) ⁽³⁸⁰⁾ (check out [Alaris YouTube video](#))

[ChargeDetColumn2] - the pack volume (the number of messages in the pack) - check out [Alaris YouTube video](#)

[ChargeDetColumn3] - network

[ChargeDetColumn4] - country

[ChargeDetEvent] – number of messages

[ChargeDetEventRevSign] - -1 * [ChargeDetEvent]

[ChargeDetMCCMNC] - 6-digit MCCMNC

[ChargeDetProductDescr] - product name, similar to [ChargeProductDescr]

[ChargeDetRate] – rate

[ChargeDetTaxRate] - column in the charge detail record that shows the tax rate applied for a specific row

[ChargeDetVolume] – volume

[ChargeDetVolumeRevSign] - -1 * [ChargeDetVolume]

[ChargeDetMCCMNC] - self-explanatory

Charges aggregated by group_index

[ChargeAggrAmount] – total amount in the account currency

[ChargeAggrAmount1] – total amount in currency 1

[ChargeAggrAmount2] – total amount in currency 2

[ChargeAggrAmount3] – total amount in currency 3

[ChargeAggrCurrencyCode] – charges' currency code

[ChargeAggrProductDescr] – list of product descriptions separated by comma

[ChargeAggrSmsCount] – total amount of billed messages

Invoice daily stats

[SmsDailyDate] - stats date

[SmsDailyVolume] - volume in SMS

[SmsDailyCharge] - charge in account currency

Markers for the invoice reference number

[CAR_ID] – carrier identifier

[AGR_CODE] – agreement code

[YYYYMMDD] – invoice issue date

[YYMMDD] – invoice issue date (another format)

[X*] - invoice number (if, for example, the value is set to XXXX, then numbers are 0001, 0002, ... 9999)

Balance and credit limit notification markers

[Balance] - account balance with currency code

[BalanceOrCreditUsage] - current percentage of credit limit usage

[CompanyName] - company registered name

[Credit] - credit limit with currency code

[CurrentDate]

[EstimUntilLimitReached] - estimated number of days until credit limit is reached. It is calculated using the formula: "(balance + credit limit) / previous day consumption"

[PrevDayConsumption] - balance consumption for the previous day

[SystemOwnerName] – name of the System owner

Markers for SMS rate export (letter and rate file)

[BilledBy] - replaced with 'Sent'/'Delivered' depending on billing type defined in product settings

[BillingPreset] - name of the SMS billing option selected for the product

[Comments] - content of the field *Comments* ([SMS\Rate\Rate export](#)^[251] in exported rate sheets)

[CompanyName] – partner name

[CompanyRegisteredName] – name of the partner's company as specified in the parameter *Company registered name* in [Carriers\Agreements](#)^[111]

[CompanyAddress] – partner address

[Currency] - currency of the partner's account

[IssueDate] – file generation date (rate export sheet for example)

[IssueDay] - issue date without indication of time (see also the [Alaris YouTube video](#))

[OwnerName] – System owner's company name as set in the parameter *Contract company name* in [Carriers](#)^[99]

[ProductName] – name of the partner's product

[RateSnippet] - table with first 15 rate changes present in the export

[SystemIDs] - comma-separated list of channel system IDs (user names) pertaining to the exported product

[YYYYMMDD] - date in the format YYYYMMDD

[TimeZone] – time zone of the System owner

Invoice detail markers

[DetColumn1] - MNC

[DetColumn2] - MCC / service description

[DetColumn3] - network

[DetColumn4] - country

[DetColumn5] - sender ID

[DetEventCount] - event count

[DetMCCMNC] - 6-digit MCCMNC

[DetVolume] - volume

[DetRate] - rate

[DetAmount] - amount

[DetTotalEventCount] - total event count

[DetTotalAmount] - total amount

[DetConnFeeRate] - total connection fee amount

[DetConnFee] - connection fee rate

[DetProductDescr] - product names for each detail record

Markers used in the *Partner portal greeting letter template* (See also the [Alaris YouTube](#) video)

[UserLoginName] - user's login name

Markers used in emails containing the link that serves to reset the password (for the Main interface, Alaris Campaign Portal and Wholesale portal)

[SystemOwnerName] - name of the System owner

[UserFirstLastName] – user's first and last names

[UserLoginName] – user's login

[Link] - link to log in to the System owner web interface (if the user carrier id = System owner carrier id (id = 1))

[UILink] - URL link to the System's main web interface

[PortalLink] - login link to the Partner portal

[SelfcareLink] - link to Alaris Campaign Portal, empty if the user is not assigned the role *Campaign Portal partner portal*

[InterfaceNames] - list of interfaces for password reset separated by " , "

Markers used in emails containing the password change confirmation link (for the Main interface, Alaris Campaign Portal and Wholesale portal)

[SystemOwnerName] - name of the System owner

[UserFirstLastName] – user's first and last names

[UserLoginName] – user's login

[PasswordExpireDate] – password expiry date

[Link] - link to log in to the System owner web interface (if the user carrier id = System owner carrier id (id = 1))

[UILink] - URL link to the System's main web interface

[PortalLink] - login link to the Partner portal

[SelfcareLink] - link to Alaris Campaign Portal, empty if the user is not assigned the role *Campaign Portal*

[InterfaceNames] - list of interfaces for password reset separated by " , "

Markers used for payment registration notification (Learn more in [Alaris YouTube video](#))

[CompanyName] - carrier's name

[SystemOwnerName] - System owner's name

[Balance] - account balance

[PaymentSystem] - comments (payment system)

[BankStatementAmount] - total amount received

[BankFee] - fees

[CurrencyName] - payment currency

[PaymentAmount] - amount debited to the account

[CompanyRegisteredName] - carrier's registered name

Markers used for portal payment notification (Learn more in [Alaris YouTube video](#))

[CompanyName] - carrier's name

[CompanyId] - carrier ID

[AccountId] - account ID

[PaymentSystem] - comments (payment system)

[PaymentCurrencyCode] - payment currency

[BankStatementAmount] - total amount received

[BankFee] - fees

[PaymentAmount] - amount debited to the account

[TotalAmount] - amount debited to the account

[CurrencyName] - payment currency

[ReferenceNumber] - payment reference number

Markers used in Wholesale portal EDR export letter

[Link] - Link to export result

4.10 Trace analyzer

The *Administration\Trace analyzer* page provides a convenient web interface for capturing network traces in the PCAP format. This comes instrumental in low-level troubleshooting of partner channels.

The System captures network traces on a non-stop basis and by default stores them for three days. The *Trace analyzer* page allows filtering the required file. Filtering tasks can be created for a past period not exceeding three days (the storage period can be changed by request - contact the Alaris technical support team).

The page consists of two sections - the *Analysis params* section that is a filter that serves to locate the required PCAP file, and the table of tasks.

Analysis params <<

Carrier:

Hostname*:

Start date offset:

Start date*:

End date offset:

End date*:

Analysis parameters (filter)

The *Analysis params* section contains the following fields:

- *Carrier*
- *Hostname*: carrier's IP address or a domain name; masks are not supported.

NOTE: Domain names are resolved by the current IP address. In other words, if traffic was sent through the domain name *my.example.com* that was previously resolved as *1.1.1.1* and is currently resolved as *2.2.2.2*, the Trace analyzer will not show any data for the hostname *another.example.com* and the task will be empty. To see the information specify the IP address instead of the domain name, - in this example, *1.1.1.1*.

- *Start date offset*: serves to set offset in regard to the *Start date* to ensure better usability. Note that if the *Start date* is set in the future, and the offset will be applied to the current time
- *Start date*
- *End date offset*
- *End date*

To download the file, click on the link in the *Details* column of the table of tasks.

Task ID	Task created	Task status	Carrier	Hostname	Start date	End date	Details	User name
	-- ∞ ≤ X ≤ ∞	All	All	All				All
TASK301124	2019.08.20 22:52:13	ready	-	62.210.57.182	2019.08.20 21:52:12	2019.08.20 22:52:12	downl...	Alaris
TASK257396	2019.04.10 12:37:27	ready	-	50.7.93.130	2019.04.10 10:58:00	2019.04.10 11:00:00	downl...	Alaris
TASK257024	2019.04.10 11:02:01	ready	-	50.7.93.130	2019.04.10 10:45:00	2019.04.10 11:00:00	downl...	Alaris
TASK252148	2019.03.26 09:21:48	ready	-	192.168.18.234	2019.03.26 08:21:48	2019.03.26 09:21:48	downl...	Alaris
TASK211782	2018.11.14 08:05:08	ready	ALARIS TEST	209.208.212.224	2018.11.14 00:00:00	2018.11.14 00:15:00	downl...	Alaris
TASK203086	2018.10.17 14:29:16	ready	ALARIS TEST	209.208.212.224	2018.10.05 00:00:00	2018.10.17 00:00:00	downl...	Alaris
TASK198952	2018.10.05 13:29:37	ready	ALARIS TEST	209.208.212.224	2018.10.05 00:00:00	2018.10.05 00:15:00	downl...	Alaris
TASK198950	2018.10.05 13:27:33	aborted	ALARIS TEST	127.0.0.1	2018.10.05 00:00:00	2018.10.05 00:15:00		Alaris
TASK198948	2018.10.05 13:27:20	aborted	ALARIS TEST	127.0.0.1	2018.10.05 00:00:00	2018.10.05 00:15:00		Alaris
TASK198946	2018.10.05 13:26:56	aborted	ID: 1598	89.31.240.234	2018.10.05 00:00:00	2018.10.05 00:00:00		Alaris

Table of tasks

NOTE: By default traces are stored in the System for three days.

4.11 Users

The *Administration\Users* page contains information on user accounts that allow logging in to the System. The access to the main System interface is granted only to the System owner users, while other carriers' users can log in only over the [Wholesale portal](#)⁹⁷ or [Alaris Campaign Portal](#)³⁸⁰ interface.

ID	Carrier	Login	Is active	First name	Middle name	Last name
	All	Text mask	All	Text mask	Text mask	Text mask
12164	PocoDinero Enterprises	poco	Yes	John		Smith
12165	PocoDinero Enterprises	Poco Loco	Yes	Mary		Poppins
12166	PocoDinero Enterprises	Chippolo	No	Chippo		Lino

Users

The right-hand panel contains the *Add* and *Edit* tabs.

Add
 Edit

General

Carrier*: System owner

Contract companies:
 Anton_comp
 Example - Norway
 General

Login*: SuperCom

Email*: sc@sc.com

Is active

Allowed IP-addresses: 122.55.66.77

Expiry date*: 2019.12.28

User data

First name*: Alex

Middle name:

Last name*: Super

Position: engineer

Birthday: 1993.10.29

Language*: English

Add tab, General and User data

The *Add* tab contains the following parameters:

General:

- *Carrier*: select the carrier from the drop-down list
- *Contract companies*: select the legal entities of the System owner on behalf of which it works with a partner

NOTE: The field is displayed only for users of the System owner carrier. For other users the field is hidden as its data is not used.

- *Login*: the user's login
- *Email*: the user's email (several comma-separated values can be used)
- *Is active*: defines whether the user will have access to the System interface (for users belonging to the System owner) or the [Wholesale portal](#)^[97] or [Alaris Campaign Portal](#)^[380] (for users belonging to any other carrier)
- *Allowed IP addresses*: IP addresses allowed for logging in to the System. Several comma-separated IP addresses or a network mask can be entered
- *Expiry date*: specify the user account expiry date

User Data:

- *First name, Middle name and Last name* of the user
- *Position*: the user's position in the company
- *Birthday*: the user's birth date
- *Language*: web-interface language. English is the default language

Preferences

Date format:

Date time format:

Send rate changes

Send invoices

Send alarms

Add tab, Preferences

Preferences:

- *Date format* (a filter can be used to easily locate the appropriate value)
- *Date time format*: the date format with an indication of the time (a filter can be used to easily locate the appropriate value)
- *Send rate changes, Send invoices, Send alarms*: define whether the System will send this information to the user's email address defined in the *Email* field

Contacts:

- *Main contact phone number, Office phone, Mobile phone number, Skype, MSN, Other IMs*: the user's contact information

Roles

Parent manager:

Inherit permissions from:

Filter permissions by key or name

System owner. NO restrictions

- Active calls
 - Show other managers' vendor information
 - Show other managers' client information
- Administration
 - Account manager history
 - Edit account manager history
 - Outgoing email accounts
 - Email rules management
 - Custom parameter types
 - Edit custom parameter types
 - Impersonate
 - Report schedule
 - Tags
 - Import of tags
 - System jobs
 - Service notifications
 - System parameter view
 - System parameter edit
 - Template manager

Add tab, Permissions

Roles: permissions to access the interface components. User roles restrict the information within the System interface from being seen or edited by specific users - so, for example, a user from the technical department cannot see any financial details. Select the flag *System owner. NO restrictions* to grant all possible permissions to the user.

NOTE: Users that do not have the role *System owner. NO restrictions* cannot see the *Start -> License info* menu. Check out the feature in the [Alaris YouTube video](#).

- *Parent manager*: this field allows flexible handling of user viewing permissions. The user will be able to see the parent manager's carriers as their own.

NOTE: The user can only view the parent manager's carriers. In order to perform any data change for those carriers (for example, rate changes, invoicing) – the user must have the appropriate permissions defined.

- *Inherit permissions from*: allows selecting one or several users from which permissions will be inherited (Find out more in the [Alaris YouTube video](#))

NOTE: Permissions can be inherited only from System owner users.

- *Filter permissions by key or name:* the field helps quickly find the appropriate permission. See also the [Alaris YouTube](#) video

Selection of permissions is based on the following principles (learn more about this in [Alaris YouTube](#) video):

- If a dependent permission is granted, all higher-level permissions are enabled automatically (for example, selection of the *Edit custom parameter types* automatically enables *Custom parameter types* and *Administration* as illustrated in the figure above)
- Granting permission of a higher level does not enable all the dependent permissions
- To grant both the higher-level permission and its dependent ones, use CTRL-click on the checkbox of a higher-level permission

For a full list of permissions, refer to [Appendix 8. User permissions](#)^[510]. Below the most frequently used permissions are detailed:

- *Administration:*
 - *Impersonate:* when selected, the user can log in to the Alaris Campaign Portal and main interface using another user's identity (adding its login to the username after #, in the format yourlogin#otherusername) with its own password. This feature allows checking up the statistics and other partner-related data as seen by the user (based on the user's rights) without knowing or resetting its password
 - *User administration\Manual password change:* when enabled, the user's *Edit* tab contains the  button that allows setting the password directly in the interface.
-
- *Carriers:*
 - *View credit limits in agreements:* allows the user to view partners' credit limits (the *View/edit permissions* -> *View and edit all data (except System owner parent rates)* permission must also be enabled)
 - *Edit credit limits in agreements:* allows the user to edit partners' credit limits. The user can view and edit limits only if this permission and *View credit limits in agreements* are enabled
- *Carriers -> Products edit:*
 - *Delete products with dependencies:* allows the user to delete products that have associated rates, POI and volume-based deals
- *View/edit permissions* defines what kind of information can be viewed by the user:
 - *Edit parent products belonging to system owner:* when deselected (and the *View/edit all data* permission is not set either), the user cannot edit rates of the System owner's products (find out more in the [Alaris YouTube video](#))
 - *View and edit objects of managed accounts:* allows the user to view and edit data pertaining only to the accounts managed by the user. When the checkbox is selected, the user cannot see templates associated with other users' accounts (templates are configured at [Administration\Template manager](#)^[731]). See [Alaris YouTube video](#) for detail.

- *View and edit objects of own contract companies:* allows the user to view and edit data pertaining only to the contract companies assigned to the user. When the checkbox is selected, the user cannot see templates associated with other users' contract companies (templates are configured at [Administration\Template manager](#)^[75]). See [Alaris YouTube video](#) for detail.
- *View and edit all data (except System owner parent rates), View all data:* allows the user to view and/or edit any data in the System

NOTE: A user with limited permissions (that is, having no role *System owner*. *NO restrictions* or no *View and edit all data (except System owner parent rates)* permission) can see only files available to the carriers that the user can access in sections [SMS\Rates\Rate import](#)^[258] and [Administration\Email processing rules](#)^[22].

- Edit rates\routing permissions
 - Edit client rates and routes
 - Edit vendor rates and routing
 - Edit client rates/routing for own accounts
 - Edit vendor rates/routing for own accounts
 - Recurring fees edit

Add tab, Edit rates\routing permissions

- *Recurring fees edit:* allows editing recurring fees

- SMS analytics
 - Telescopic mode
 - View SMS financial details
 - View SMS technical details
 - Show other managers' vendor names and channels
 - Show other managers' client names and channels
 - View all client data
 - View all vendor data

Add tab, SMS analytics

- *SMS -> SMS Analytics:*
 - *Telescopic mode:* when disabled, the *Telescopic mode* button is hidden from the [SMS\Analytics](#)^[213] page
 - *View SMS financial details, View SMS technical details:* allows limiting access to the technical or financial sections of the [SMS\Analytics](#)^[213] page
 - *Show other managers' client/vendor names and channels:* when disabled, other managers' client/vendor names and channels respectively are replaced by their IDs
 - *View all client/vendor data:* when deselected, statistical layers of client or vendor objects respectively are completely hidden. For example, if a user does not have *View all client data permission* granted, layers like *Client product*, *Client channel*, *Client country* are not available in the dropdown list

- e.212/e.164 reference book
- e.212/e.164 reference book edit
- e.212/e.164 reference book export
- e.212/e.164 reference book import

SMS -> e.212/e.164 reference book

- SMS -> e.212/e.164 reference book (Find out more in the [Alaris YouTube video](#)):
 - e.212/e.164 reference book edit: allows editing entries in [SMS\Reference books\e.212/e.164 reference book editor](#)^[280]
 - e.212/e.164 reference book export: allows users to perform data export from [SMS\Reference books\e.212/e.164 reference book editor](#)^[280]
 - e.212/e.164 reference book import: allows import in [SMS\Reference books\e.212/e.164 reference book editor](#)^[280]

- Partner portal
 - Campaign portal user administration
 - Show purchase tab
 - Show packs
 - Show rates tab
 - Show balance
 - Show finance info
 - Show message content
 - Show graphs
 - Campaign Portal
 - Wholesale partner portal
 - Export CDRs/EDRs

Partner portal

- *Partner portal*: defines permissions for users having access only to the [Wholesale portal](#)^[97] or [Alaris Campaign Portal](#)^[380]. Users having access to Alaris Campaign Portal or the Wholesale portal must be created on behalf of a carrier other than the System owner
 - *Partner portal user administration*: when granted, the *Administration* tab appears in the [Alaris Campaign Portal](#)^[380] interface. It provides a list of all existing users that are registered under the partner and allows adding and editing the users and their permissions
 - *Show financial tabs*: when disabled, the tabs *Invoices* and *Payments* are hidden from the [Wholesale portal](#)^[97]
 - *Show purchase tab*: serves to display/hide the *Purchase* page of [Alaris Campaign Portal](#)^[380]
 - *Show packs*: serves to display the packs in the *Purchase* page of [Alaris Campaign Portal](#)^[380]
 - *Show rates tab*: when disabled, the *SMS rates* tab is hidden from the Wholesale portal and [Alaris Campaign Portal](#)^[380]
 - *Show finance info*: when granted, it allows Alaris Campaign Portal users to view the campaign cost, rates, balance and price of SMS packs, and Wholesale portal users to view the *Cost* column in the *SMS stats* page. Additionally, when the permission is granted, the *Buy*

subscription button is shown in Alaris Campaign Portal. The button appears when the user attempts to send an SMS to a destination for which the user has no subscription. See also the [Alaris YouTube](#) video

- *Show message content*: serves to control the REST API method GET sms_edr. When a user with the disabled permission calls this method, message content is hidden in the output
- *Show graphs*: when disabled, no charts are displayed on the [Dashboard](#) page of Alaris Campaign Portal. Also see the [Alaris YouTube video](#)
- *Campaign Portal partner portal*: grants access to Alaris Campaign Portal
- *Wholesale partner portal*: grants access to the Wholesale portal
- *Export CDRs/EDRs*: when disabled, the export menu will be hidden from the Wholesale portal interface

- SMS routing
 - Message templates
 - SMS routing features edit
 - SMS routing statistics edit
 - SMS routing rules view
 - SMS routing rules edit
 - SMS translation rules view
 - SMS translation rules edit

SMS routing

- *SMS routing*: enables the view and editing of routing-related capabilities:
 - *Message templates*: when enabled, the user is allowed access to [SMS\Routing\Message templates](#)
 - *SMS routing features edit*: when enabled, the user can edit routing features at [SMS\Routing\Routing features](#)
 - *SMS routing statistics edit*: when enabled, the user can edit [SMS\Routing\Routing statistics](#)
 - *SMS routing rules view/edit*: when enabled, the user can access the [SMS\Routing\Routing rules](#) and edit records respectively
 - *SMS translation rules view/edit*: when enabled, the user can access the [SMS\Routing\Translation rules](#) page and edit records respectively

Find out more about the feature in [Alaris YouTube](#) video.

- *SMS rate import*: allows the user to select for import vendor or client rates respectively:
 - *Import client rates*
 - *Import vendor rates*. See also the [Alaris YouTube video](#)

- SMS simulation interface
- SMS simulation
- SMS test send

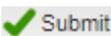
SMS simulation interface

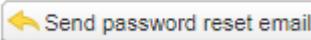
- *SMS simulation interface*: contains the permissions *SMS simulation* and *SMS test send*. When disabled, the user cannot access the sections [SMS\Routing\Simulation\Simulation](#)^[314] and [SMS\Routing\Simulation\Send SMS](#)^[326] respectively. Find out more in the [Alaris YouTube video](#)

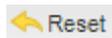
- Campaign Portal
 - SMS packs
 - SMS packs management
 - SMS packs user subscriptions
 - Edit user subscriptions

Campaign Portal

- *Campaign Portal*: serves to edit access rights to the *Campaign Portal* section and contains the following rights:
 - *SMS packs*: allows viewing the [Campaign Portal\SMS pack](#)^[356] page
 - *SMS packs management*: allows creating and editing SMS packages in the [Campaign Portal\SMS pack](#)^[356] page
 - *SMS packs user subscription*: allows viewing the [Campaign Portal\SMS pack user subscription](#)^[358] page
 - *Edit user subscriptions*: allows terminating user subscription in the [Campaign Portal\SMS pack user subscription](#)^[358] page
- *Show start page metrics*: when disabled, the *Start* page metrics are not displayed for the user. Learn more in the [Alaris YouTube video](#)

When through with defining the parameters, click  to confirm. The user will receive a password setup link to the email specified in the *Email* field.

NOTE: The *Edit* tab contains the  button that sends a password reset link to the user's email, and the  button that allows setting the password directly in the interface. The latter is available if the user has the *User administration\Manual password change* right enabled.

Click  to discard the settings. Click  to create a duplicate of the configured record. This is helpful in configuring another user with similar parameters. Click  to delete the selected record.

5 Carriers

The *Carriers* section is one of the most essential components of the System. It allows managing information related to partners as it contains all the basic data about carriers the System owner works with.

The *Carriers* section includes the following pages: *Carriers*, *Users*, *Accounts*, *Agreements*, *Products*, *SMS Channels* and *SMS POI*. The pages are interconnected and do not allow inadvertent deletion of any parent item if it has at least one child component. In case you are sure to delete a carrier or some of its parent components, use the **✖** *Delete this <item name> and all child components* button which permits deletion after confirmation.

Each tab sheet stores a full list of items indicated in the tab, so they can all be viewed in one place. This is useful when you need to find out, for example, to which carrier belongs a particular IP address. Each tab sheet allows filtering items according to objects they belong to or by their key parameters using text masks or drop-down lists under the column headers. To clear the configured filter click the *Clear filter* **✖** button located in the top left corner of each tab sheet.

The filters support regular expressions. The expression must start with **^** and end with **\$** (the symbols signify the start and end of the expression respectively). For example, to find all occurrences of the letter combination "super" use the following expression: **^.*super.*\$**. The following fields in the *Carriers* subsections support regular expressions:

- *Carriers: Carrier name*
- *Users: Login, First name, Middle name, Last name*
- *Accounts: Description*
- *Agreements: Agreement code, Company registered name*
- *SMS channels: Channel name, Host name, Port*
- *SMS POI: Service type*

Learn more about the feature in the [Alaris YouTube video](#).

Once you select a carrier by highlighting it in the first tab sheet, all other tab sheets display only objects belonging to that carrier. The information on each page of the *Carriers* section can also be filtered irrespective of the carrier selected in the first page.

Each page of the *Carriers* section is divided in two panels. The left panel contains the table with the items registered in the System. The right panel contains the *Add* and *Edit* tabs that allow adding new records or editing existing ones. To activate the *Edit* tab, click on the record in the table.

5.1 Carriers

The *Carriers* tab sheet contains general information about carriers. The page is divided in two sections. The left section displays a table of carrier records registered in the System.

Carriers										
Carriers	Users	Accounts	Agreements	Products	SMS channels	SMS POI				
ID	Region	Carrier name	Is trusted customer	Credibility		Inbound traffic allow...	Outbound traffic allowed			
<input type="checkbox"/>	All	Text mask	All	Min.	Max.	All	All			
478	-	Alcazar Networks	No			Yes	Yes			
352	-	Alice Wondersystems	No			No	Yes			
416	-	Alopex Lagopus VSEMU	No			No	No			

Carriers

The table contains the following information:

- *ID*: internal identification number
- *Region*: region of the carrier (the regions are listed in the [Reference books\Regions](#) section)
- *Carrier name*: full name of the carrier’s company
- *Country*: the carrier's country
- *Is trusted customer*: type of the credit control approach (if the *Is trusted customer* parameter is Yes, the carrier will not be disconnected irrespective of the account balance). The value depends on the *In credit* parameter in the [Carriers\Agreements](#) page
- *Credibility*: index of the partner’s due diligence, automatically calculated based on the partner’s payment stability, subjective estimation, credit limit and traffic volume stability
- *Inbound/Outbound traffic allowed*
- *Contract company* (the top of the column contains a filter to easily locate the appropriate value)
- *Account manager* (find out more in [Alaris YouTube video](#))

The bottom of the table contains the *hide inactive* checkbox. When selected, inactive records are hidden. The checkbox is only shown if the *Inactive carriers* option is set to *Show* in [Start\User settings](#). See also the [Alaris YouTube](#) video.

+ Add
 ✎ Edit

Carrier name*:

Subjective estimation:

Inbound traffic allowed
 Outbound traffic allowed

Country:

Address:

Region:

Comments:

Contract company*:

Is active
 Is test

Custom parameters

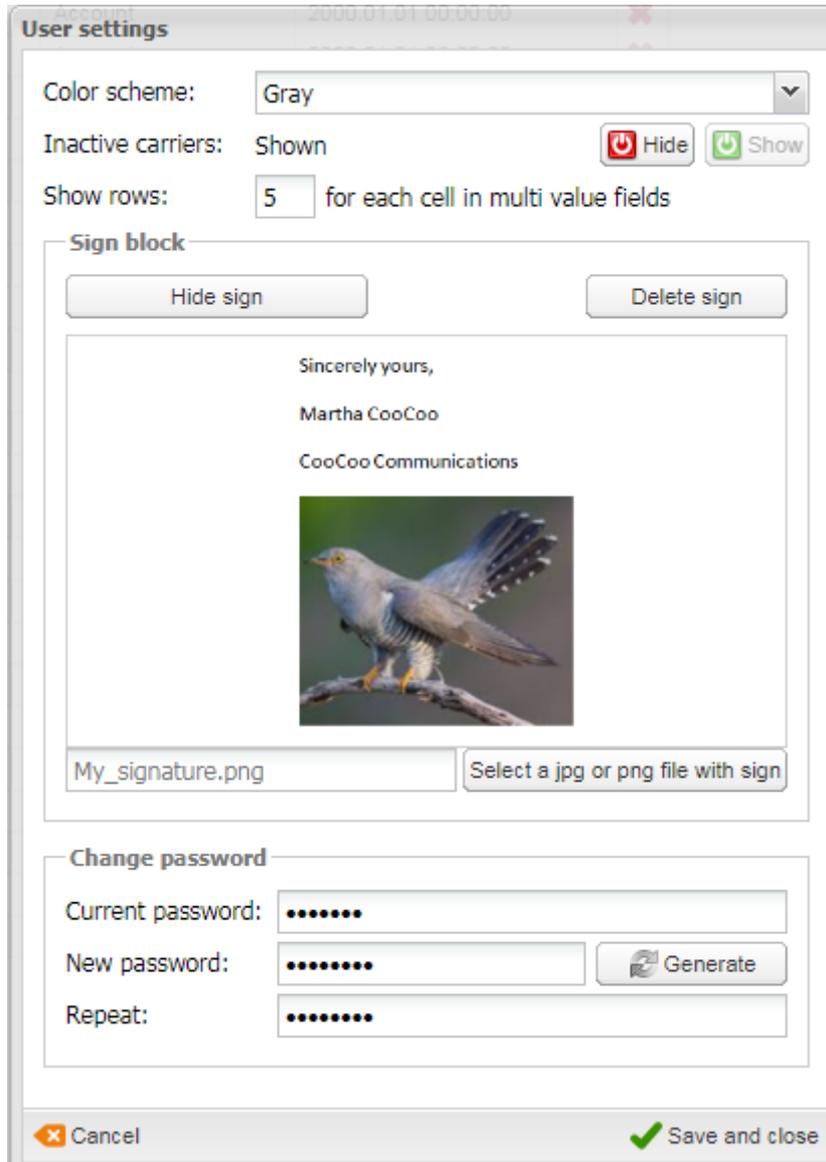
Self signed-up

Add carrier tab

The right section contains the *Add* and *Edit* tabs. To add a new carrier, enter the appropriate parameters in the *Add* tab. Fields marked with an asterisk (*) are required.

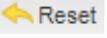
- *Carrier name*: full name of the carrier's company
- *Subjective estimation*: personal estimation of a carrier for *Credibility* calculation
- *Inbound traffic allowed* / *Outbound traffic allowed*
- *Country*: the carrier's country. It is filled in automatically for users that selected the country when registering in Alaris Campaign Portal
- *Address*: the carrier's postal address
- *Region*: geographical region
- *Comments*: any relevant notes
- *Contract company*: the legal entity of the System owner on behalf of which it works with the carrier. The parameter comes handy when the System owner interacts with different partners on behalf of different legal entities (a filter can be used to easily locate the appropriate value)
- *Is test*: when the checkbox is selected, the carrier's record is displayed in orange font, and the *Carrier name* has the prefix [TEST]. Such labeling is intended to prevent using newly added carriers that are still being verified in production routing

- *Is active*: when deselected, the carrier records are grayed out in the table. Products and POIs of inactive carriers cannot be selected when configuring routing rules. To hide inactive carriers from the table and multipickers, go to *Start >> User settings* and click .
- *Self signed-up*: if the checkbox is displayed as selected in the *Edit* tab, it means that the user was created in the [Alaris Campaign Portal \(Retail\) portal](#)^[380]. Such records are highlighted in green in the [SMS\Analytics](#)^[213] section

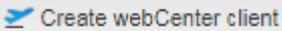


User settings

To make a carrier record operative, at least one account must be created (see [Carriers\Accounts](#)^[109] for more detail).

When through with defining the parameters, click  to confirm or  to discard the settings.

To delete a record, select it in the table and click  in the *Edit* panel.

Users of the Alaris Campaign Portal can also be created in the *Carriers\Carriers* page. Click  at the bottom of the carriers table. Complete the appropriate fields and click . The new record appears in the list of carriers. A Partner portal activation letter is sent to the

email specified in the *Email or Username* field. The *Company name* is displayed in the *Carrier name* column. See also the [Alaris YouTube](#) video.

Create Campaign Portal client

Contract company*:

Email or Username*:

Password*:

Last name*:

First name*:

Company name*:

Currency*:

*All fields are required

Create Campaign Portal client

5.2 Products

The *Carriers\Products* page contains information about products associated with carriers' accounts. A product is a rate plan, or, in other words, a type of service level agreement (SLA) offered to partners. Products allow grouping vendors and clients based on their SLA, and are then used for creation of routing rules for such groups.

Each product is linked to an account, so its currency is always the same as that of the account.

ID	Carrier	Product name	Product notes	Acc. currency	Acc. desc...	Direction	Product type
	All	SUPER SECRET CREMLIN L	All	All		All	All
171...	[TEST] 1912_vendor	SUPER SECRET CREMLIN LINE	-	RUB		Vendor	SMS
155...	ds1_vendor	SUPER SECRET CREMLIN LINE	-	RUB		Vendor	SMS
155...	Natalia_vendor	SUPER SECRET CREMLIN LINE	-	RUB		Vendor	SMS

Products

Use text masks or drop-down lists under the column headers to filter the records in the table. The bottom of the table contains the *hide inactive* checkbox. When selected, inactive records are hidden. The checkbox is only shown if the *Inactive carriers* option is set to *Show* in [Start\User settings](#)^[14]. See also the [Alaris YouTube](#) video.

The right panel contains the *Add* and *Edit* tabs.

Add
 Edit

Carrier*:

Account*:

Product type*:

Direction*:

Product name*:

Product notes:

Use sender MCCMNC based rates

Send rate change notifications automatically:

Parent product:

Dip HLR

HLR prefixes:

Send import results to account manager

Invoice group index*: Autovalue

Kind	Type	Class	
Partner service ...	Premium		✘

Add classifier

Is active

Is test

Billable

SMS billing option*:

Custom parameters

Product manager user ID:

Add tab

The Add tab allows defining of the following parameters:

- *Carrier*: select the carrier from the drop-down list
- *Account*: select the account from the drop-down list
- *Product type*: possible values include:
 - *Balance correction*
 - *HLR* (available only if *Direction* is *Vendor*): select to calculate the rate for HLR dipping for this product. Rate editing, as well as rate import and export for HLR products is also

available ([SMS\Rates\Rate editor](#)^[244], [SMS\Rates\Rate import](#)^[258] and [SMS\Rates\Rate export](#)^[251])

NOTE 1: Products of the *HLR* type can be created for any carrier (it is possible to create a dedicated partner for each of the employed HLR service providers or create all products under the System owner carrier). However, the product name must be unique: it must contain the name of the HLR provider in the lower case, for example, *infobip*. For a list of HLR providers refer to [Appendix 2. Supported HLR providers](#)^[437]. The System will also create invoices for HLR requests that will be managed according to the billing period defined in the respective agreement. Learn more about this feature in [Alaris YouTube video](#).

NOTE 2: It is possible to create several products for one and the same HLR service provider. This may come handy when the HLR provider offers several SLA-based rate plans. Select *Product type = HLR*, in the *Product* field specify the *source_name*, and in the *Product notes* field specify the *source_type*. For the values of the *source_name* and *source_type* contact the Alaris technical support team and communicate the code BZ26773.

NOTE 3: The user can generate invoices based on HLR proxy EDRs for external client requests. The feature enables full-fledged reselling of the HLR service. EDRs are imported to the database every several minutes, and the invoices are generated based on agreement settings. To configure the feature, create an HLR product with *Direction: Client*, import the appropriate rates to the product and communicate the product ID and name of the user created for reselling (whose requests will be billed within the product) to the Alaris technical support team for internal configuration.

- *SMS*: SMS traffic
- *SMS pack*: serves to handle charges generated by the [Alaris Campaign Portal](#)^[380] when a user buys SMS packages. Learn more in the [Alaris YouTube video](#)
- *Direction*: select the traffic direction (*Client* or *Vendor*) from the drop-down list
- *Product name*: select the product name from the drop-down list (a filter can be used to easily locate the appropriate value). To create a new product name, type it in the edit box  and click the  button
- *Product notes*: select the notes from the drop-down list or create a new note using the edit box similar to the *Product* field (a filter can be used to easily locate the appropriate value). The maximum field length is 64 symbols.
- *Use sender MCCMNC based rates*: select to enable routing and billing of p2p traffic, that is, traffic based on the sender MCCMNC. When enabled, the System searches rates based on the MCCMNCs found for both sender ID and destination number. It is also possible to add or import sender MCCMNC-based rates to the product (select the *Use sender MCCMNC based rates* checkbox and complete the *Sender MCCMNC* field in the *Add rate* dialog in [SMS\Rates\Rate editor](#)^[247] or assign the *sender e.212 column* when parsing a rate sheet in [SMS\Rates\Rate import](#)^[263]). See also the [Alaris YouTube video](#)
- *Use VerifySMS*: when enabled, the SMS router will send a request to the Google Verified SMS service (if it is configured in advance) in order to register the message. To configure the service contact the Alaris technical support team and communicate the code BZ36349
- *Send rate change notifications automatically*: serves to configure automatic notification of rate changes and contains the following values:
 - *Do not send*: no rate changes are sent
 - *Send partial price list*: send only changes that were made recently

- *Send full price list*: send a complete rate sheet

NOTE: The hour at which notifications are dispatched is set by the parameter *Rate changes auto send hour* in [Administration\System settings\SMS rates](#)^[66]. If during the day the user changes rates in a product that has the parameter *Send rate change notifications automatically* set to option 2 or 3, a new rate export task will be generated at the predefined hour, and the user will be notified accordingly. The task is created with the *Export type = changes pending at (current date)*. This works for rates changed in [SMS\Rates\Rate editor](#)^[244] and [SMS\Rates\Rate import](#)^[258]. However, if the changes made in the Rate editor are scheduled for the dates outside the period set in the agreement, such rates will not be exported. Find out more in the [Alaris YouTube video](#).

- *Rate inheritance mode* (available when a product is selected in the *Parent product* field): rate searching logic for billing purposes. See also the [Alaris YouTube](#) video. Possible values are:
 - *System default*: the System uses the *Rate inheritance mode* parameter in [Administration\System settings\SMS rates](#)^[66]
 - *0 - longest match at child*: the System first searches for the child product and if there is no suitable rate (for either MCC or MCCMNC), it searches for the parent product
 - *1 - global longest match*: the System searches for the most detailed rate (in terms of both MCCMNC and dial code) in the parent and child product and uses it to charge the client
- *Base product*: select the base product from the drop-down list. A base product is a product of the same direction and associated with the same account that stores the basic rates (those not linked to A-number)
- *Dip HLR*: check the flag for real-time HLR query on the network the subscriber is currently connected to. Contact the Alaris support team to activate this function.

NOTE: An agreement with an HLR provider is required for the function to work.

- *HLR prefixes*: specify country codes (space separated) for which HLR dipping must be performed (this parameter helps minimize HLR dipping expenses by selecting only those countries where it is commercially reasonable).

NOTE: By default if this field is empty, the routing engine uses the internal list defined in the routing module configuration file which can be updated by the Alaris technical support team.

- *Send import results to account manager* (available for product type SMS): allows account managers to know what rates will be changed after rate import and when such changes come into effect. When selected, successful import of rates into a product will trigger a rate export task, and the export results will be sent to the manager of the account to which the product belongs
- *Invoice group index*: define how you want your products to be invoiced. Products having the same index will be invoiced in a single file. To have each product invoiced separately, assign a unique index to each product. To include several products in a single invoice as separate charges, assign a common integer part for appropriate products and different fractional parts for each of them, for example, 0.1, 0.2, 0.3 etc.

NOTE: When the user changes the *Invoice group index* in [Carriers\Products](#)^[103], this can affect the existing financial entities. For this reason, if you change the group index value to recalculate already existing invoices, then after the change use the option *Recalculate period* in the [Finance\Invoices](#)^[142] interface.

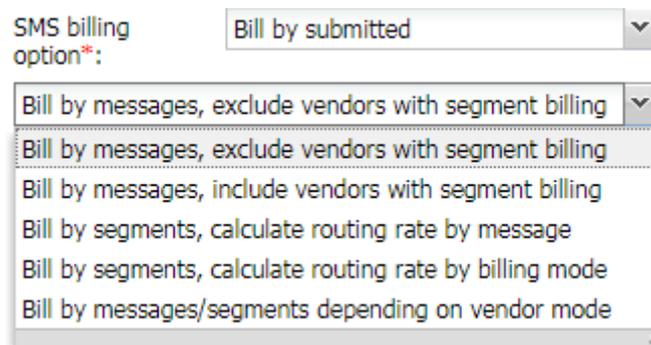
- *Autovalue*: when the flag is checked, the grouping is performed as set in the parameter *Default charge grouping mode* (for possible values refer to [Administration\System settings\Financial module](#)^[45])

- *Add classifier*: the table allows creating and assigning personalized tags to products, which may prove helpful for analytics. Click  to create a new product tag, and fill in the fields as appropriate. To assign a tag, select it in the table
- *Is active*: when deselected, the product records are grayed out in the table and drop-down lists. To display only active products, filter by the *Is active* column

NOTE: The checkbox is only used for convenient display of records and does not affect the actual routing. To exclude a product from routing, deselect the *Enabled* checkbox in [Carriers\SMS channels](#) ¹²⁰.

- *Is test*: when selected, the product record is displayed in orange font, and the *Carrier name* has the prefix [TEST]. Such labeling is intended to prevent using newly added records that are still being verified in production routing
- *Billable*: check the flag if the product must be charged for
- *SMS billing option*: defines billable SMS based on their delivery status. Default options include:
 - *Bill by submitted*: messages with the Sent status are billed (the default value)
 - *Bill by delivered*: messages with the Delivered status are billed
 - *Bill by attempt*: all message send attempts are billed
 - *Bill by reported*: messages with any DLR are billed, irrespective of the delivery status

The user can create custom billing options in [SMS\Reference books\Billing status presets](#) ²⁸⁶.



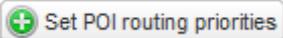
Billing option

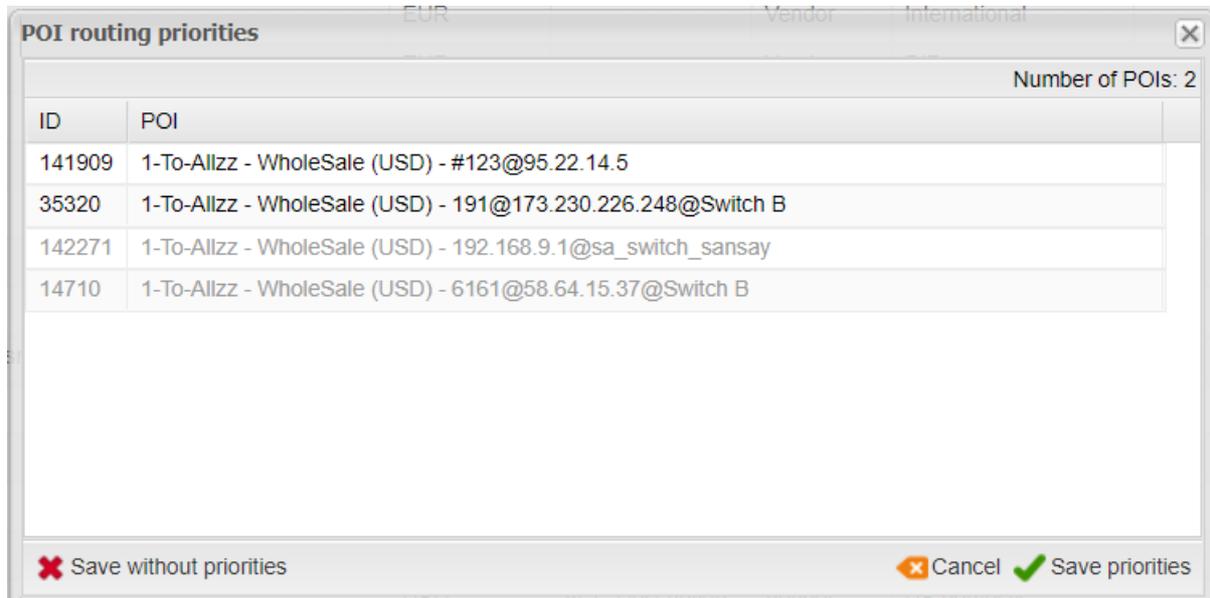
The drop-down list below the *SMS billing option* field allows selecting a billing mode (by segments or complete messages). Possible values are illustrated in the figure above.

NOTE: Different SMS billing option values for the vendor/client may result in additional profit/loss. For example, suppose the System owner receives 100 SMS messages from a client with *Bill by submitted* as the SMS billing option, forwards them to a vendor with *Bill by delivered* as the SMS billing option and gets only 50 DLR reports. In this case the System owner will receive payment for 100 SMS from the client and will only pay for 50 SMS sent to the vendor.

- *Product manager user ID*: this parameter serves to assign the product to a specific manager. It comes instrumental when there is a need to assign products within a single account to different managers. The parameter is then used in reports - for example, for calculation of bonuses.

When through with defining the parameters, click  to confirm or  to discard the settings. Click  to delete the selected record. The *Edit* tab additionally contains the following controls:

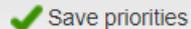
- *Number or POIs*: sets the maximum number of POIs that can be used for the product (thus limiting the number of routes for the product in the final routing list)
- The  button opens the POI routing priorities . Drag the POI records up and down the list to configure the termination sequence. The record on top of the list will be the first for termination. If the number of configured POIs exceeds the limit set in the *Number or POIs* field, the exceeding POI records will be greyed out



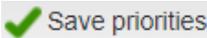
POI routing priorities Number of POIs: 2

ID	POI
141909	1-To-Allzz - Wholesale (USD) - #123@95.22.14.5
35320	1-To-Allzz - Wholesale (USD) - 191@173.230.226.248@Switch B
142271	1-To-Allzz - Wholesale (USD) - 192.168.9.1@sa_switch_sansay
14710	1-To-Allzz - Wholesale (USD) - 6161@58.64.15.37@Switch B

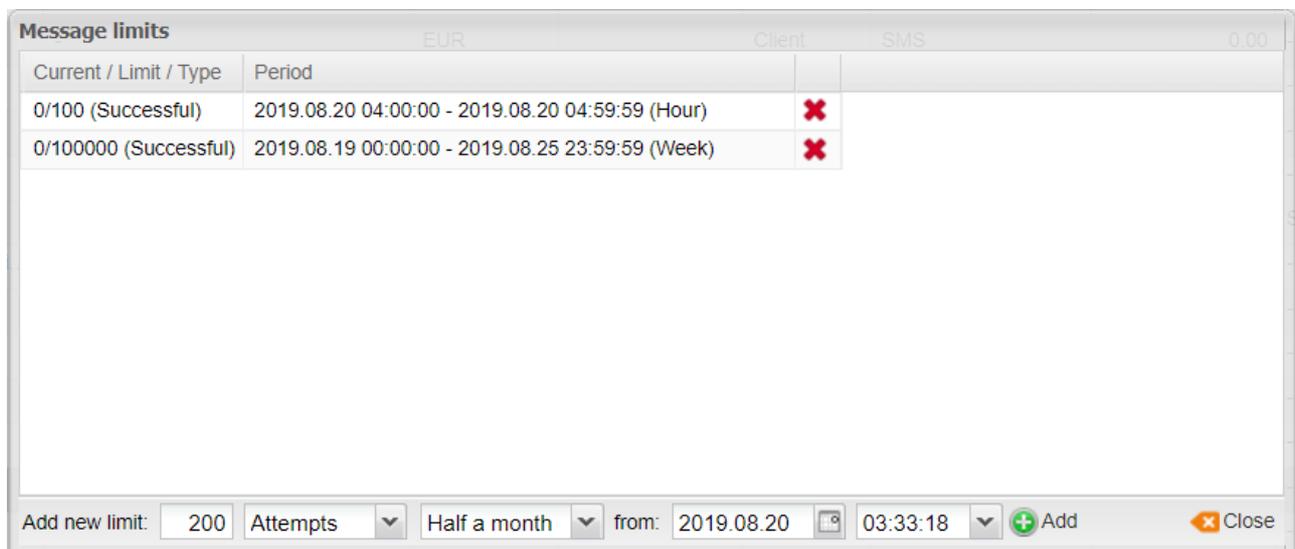


POI routing priorities

Click  to save the configured sequence. Click  to clear the sequence and use POIs in a random order.

- *Edit message limits*: opens the *Message limits* table for defining the maximum number of SMS that can be sent through the product. Select the appropriate record. To create a new limit, in the *Add new limit* field illustrated below enter the maximum number of SMS, select the SMS status (*Successful* – the DLR status is *Sent*, *Attempts* – any message send attempts, *Delivered* – the DLR status is *Delivered*), select the time period and start date, and click 



Message limits 0.00

Current / Limit / Type	Period	
0/100 (Successful)	2019.08.20 04:00:00 - 2019.08.20 04:59:59 (Hour)	
0/100000 (Successful)	2019.08.19 00:00:00 - 2019.08.25 23:59:59 (Week)	

Add new limit: from:  

Message limits

- The  **Open product rates in Rate Editor** button opens the [SMS\Rates\Rate editor](#) ^[244] page
- The  **Delete this product from all routing rules** button removes the product from all routing rules. If the product is used as a vendor in a set of static routes in a choice, its share is split equally between the other products of the choice
- The  **Delete this product and all child components** button removes the product and all entities that cannot exist without the product such as SMS POI etc

The bottom of the page contains the button  **Apply rate plan to Campaign Portal client**. Click it to add a new rate plan to a retail client (user of the [Alaris Campaign Portal](#) ^[380]). Complete the appropriate fields and click  **Apply**

Apply rate plan to Campaign Portal client

Carrier*: 

Account*: 

Parent product*: 

*All fields are required

 Cancel  Apply

Apply rate plan to Campaign Portal client

5.3 Accounts

The *Carriers\Accounts* page contains data on financial accounts associated with the carriers.

Carriers		Users		Accounts		Agreements		Products		SMS channels		SMS POI	
ID	Carrier	Currency	Balance	Balance updated	Manager	Client credit	Vendor credit						
	All 	All 	Min. Max.	$-\infty \leq X \leq \infty$ 	All 	Text mask	Text mask						
198	Carrier 1	USD	0.00	2012.11.29 18:...	Alaris (...)	Positive	Positive						

Accounts

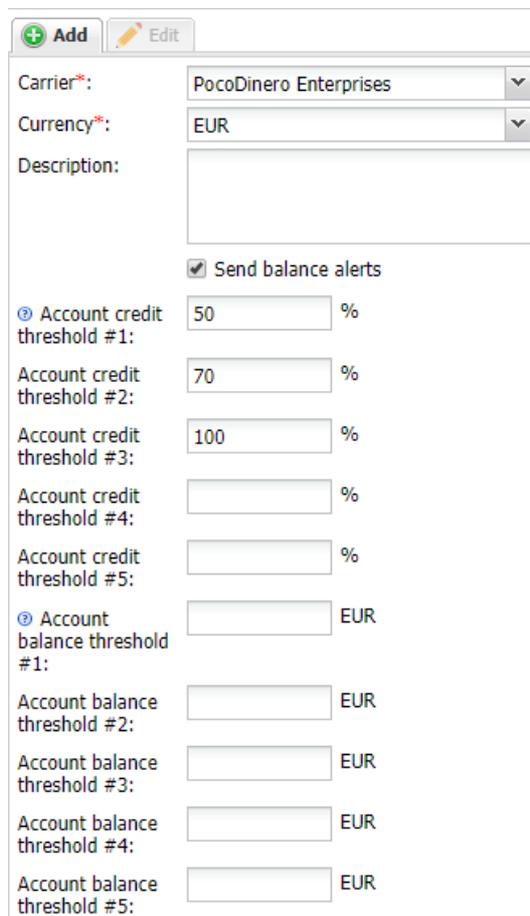
Use text masks or drop-down lists under the column headers to filter the records in the table. The table contains the following information:

- *ID*: internal identification number
- *Carrier*
- *Currency*: currency of the account. The currencies and their exchange rates are configured in [Reference books\Currency exchange rates](#) ^[174]. In order to integrate real-time update of exchange rates, contact the Alaris technical support team
- *Balance*: current balance of this account
- *Balance updated*: date and time of the latest balance update (is performed every minute)

NOTE: As the balance is not updated in real time, the credit limit may be exceeded. However, in case of frequent (every minute) update, the overlimit is normally insignificant.

- *Manager:* manager responsible for this account on the side of the System owner. The manager is assigned in [Administration\Account manager history](#) [20] once the account is created
- *Client credit:* credit status on the client’s side. The figure in brackets is the credit limit configured in the [Carriers\Agreements](#) [11] page. The value 0 means no credit available (prepaid services); no figure in brackets means the credit is unlimited (postpaid services)
- *Vendor credit:* credit status on the vendor’s side. Similarly to *Client credit*, the figure in brackets is the credit limit
- *Description:* arbitrary description of the account

The right panel contains the *Add* and *Edit* tabs.



Add tab

The *Add* tab contains the following parameters:

- *Carrier*
- *Currency*
- *Description*
- *Send balance alerts:* select the flag to send the client automatic notifications on reaching the balance limit (with a CC to the account manager). A copy of the notification can also be sent to

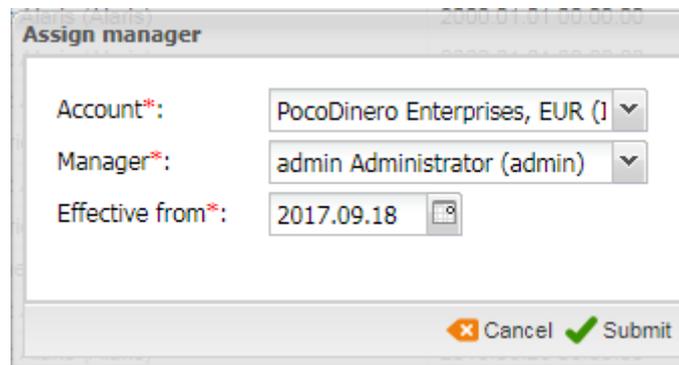
the System owner's email specified in the field *Credit and balance alarms default email* ([Administration\System settings\Financial module](#)^[45]). The selected *Send balance alerts* checkbox activates the fields below

- *Account credit threshold (#1-#5)*: notify the client when a certain percentage of the credit limit is reached (the credit limit must be non-zero and not void); supply the value as a percentage of the credit limit. Up to 5 notifications can be configured, for example, at 50 percent, 70 percent and 100 percent limit reached
- *Account balance threshold (#1-#5)*: notify the client when a certain account balance amount is reached (if the agreement is fully prepaid); supply the amount in the respective currency. Up to 5 notifications can be configured

NOTE: Credit and balance alerts are sent for vendor accounts as well - but only to the account manager and the email addresses set in the parameter *Credit and balance alarms default email* (*null- do not use it*) in [Administration\System settings\Financial module](#)^[45]. If the agreement with the carrier is bilateral (both the incoming and outgoing traffic is included), only credit limit thresholds are checked for the vendor. If the agreement with the vendor includes only the outgoing traffic direction, the System will also check balance thresholds. See also the [Alaris YouTube](#) video.

When through with defining the parameters, click  **Submit** to confirm or  **Reset** to discard the settings. Click  **Delete this account and all child components** to delete the selected record.

The *Edit* tab additionally contains the button  **Set account manager** that allows assigning a manager to an account. The button opens the *Assign manager* dialog of the *Administration\Account manager history* page.



The image shows a dialog box titled "Assign manager" with the following fields:

- Account*:** PocoDinero Enterprises, EUR (1) (dropdown menu)
- Manager*:** admin Administrator (admin) (dropdown menu)
- Effective from*:** 2017.09.18 (calendar icon)

At the bottom right, there are two buttons:  **Cancel** and  **Submit**.

Assign manager

5.4 Agreements

The *Carriers\Agreements* page stores the most essential terms of the interconnect agreements with the carriers. Most parameters defined on this page are used by the System in its automatic operation, for example, in routing. At least one agreement must be entered in the System. Each agreement is linked to a specific account.

NOTE: If both incoming and outgoing traffic directions are allowed in the agreement, some parameters will be included twice - separately for each traffic direction, those intended for client traffic starting with *In*, while those belonging to the vendor agreement section starting with *Out*.

Carriers		Users		Accounts		Agreements		Products		SMS channels		SMS POI	
ID	Carrier	Acc. curre...	Agreement code	Incoming	Outgoing	Is active	Start date	End date					
	All	All	Text mask	All	All	All	-∞ ≤ X ≤ ∞	-∞ ≤ X ≤ ∞					

Agreements

Use text masks or drop-down lists under the column headers to filter the records in the table.

The right panel contains the *Add* and *Edit* tabs.

Add
 Edit

General

Carrier*:

Account*:

Incoming
 Outgoing

Start date*:

End date*:

Legal info

Agreement code*:

Company registered name*:

Bank info:

Default bank account:

Add tab, General and Legal info

The *Add* tab allows defining the following parameters (in the corresponding account currency):

General:

- *Carrier:* select a carrier from the drop-down list
- *Account:* select an account from the drop-down list
- *Incoming/Outgoing:* traffic direction (unilateral or bilateral).

NOTE: Only one agreement can be created for each direction. Two agreements with the same traffic direction can only be created if their validity periods do not overlap. Once the agreement is created, its original traffic direction cannot be removed; however, the other direction can be added.

- *Start date*: effective date of the agreement
- *End date*: expiry date of the agreement

Legal info: company details used for reference

- *Agreement code*: arbitrary reference code of the agreement
- *Company registered name*: legal name of the partner carrier's company
- *VAT identification number*
- *Legal address*
- *Bank info*: bank details of the partner
- *Default bank account*: a default bank account of the System owner used for partner settlements (configured in [Reference books\Bank accounts](#) ^{16b)})
- *Attachment link*: link to an external document - for example, agreement with the partner

Incoming billing parameters

In time zone*:

In credit, USD:

In billing period*:

In payment period, days:

In maximum invoice billing periods:

In default dispute emails:

Generate 1 invoice details file per product type (client)

Add tab, Incoming billing parameters

Incoming billing parameters, Outgoing billing parameters: identical sets of parameters for client traffic (start with *In*) and vendor traffic (start with *Out*):

- *In/Out time zones*: time zones for the incoming and outgoing traffic. The *In time zone* value is used when creating an invoice for the client (invoicing is always done in the client time zone), while the *Out time zone* value is important when vendor rates are imported into the System, so that the System can adjust the effective date/time according to the difference between the System and the partner time zones.

NOTE: It is good practice to use the GMT time zone for invoicing in order to eliminate possible time zone discrepancies.

- *In/Out credit*: credit limits for the client and vendor sides (e.g. if the field is set to 1000, the balance of the respective account will be allowed to go down to -1000 of the account currency units before the traffic is blocked). This field value is displayed in the *Client credit* column of the [Carriers\Accounts](#) ^{16b)} table

NOTE: The default value of the *In Credit* parameter is zero, which means no credit offered to the client. If the field is empty, the *Is trusted customer* parameter is automatically set as Yes for that client and the automated credit control for it is disabled. The default value for the Out credit parameter is blank, which also turns off auto-disconnection of the vendor by the System credit control.

- *In/Out billing period:* period of the client/vendor invoice generation. Select a period ranging from 1 day to 4 months from the drop-down list

NOTE: If *Monthly* is selected, specify the start of the monthly period in the parameter *In/Out billing day*. The parameter *Weekly (non-calendar)* means that invoices will be generated for the following periods: 1st – 7th, 8th – 14th, 15th – 21st, 22nd – end of the month. Learn more about the feature in [Alaris YouTube video](#).

- *In/Out payment period, days:* number of days for issued invoices to get paid. This parameter is used for monitoring invoices which are not paid in due time. Such invoices are marked as *Overdue*
- *In/Out maximum invoice billing periods:* the number of billing periods after which the System issues an invoice irrespective of the *Minimum invoice amount* (detailed below). In other words, the parameter defines how many billing periods (with low traffic) can pass without having to generate an invoice. For example, if the parameter is set to 3, the invoice will be generated at the end of the fourth billing period, if all the four periods contain at least some traffic.

NOTE: If there is no traffic at all during a billing period, no charge is created and the period is not included in the total count of *In/Out maximum invoice billing periods*. For example, if a parameter is set to 2 and there is some traffic in periods 1 and 2 (below the value set in *Minimum invoice amount*) and no traffic in period 3, no invoice will be created at the end of period 3. If there is any traffic at period 3, the invoice will be created at the end of period 3, otherwise the System will wait for a period with any traffic at all and generate the invoice at the end of it for all the preceding periods. In other words, the invoice will contain three periods with at least some traffic.

- *In/Out default dispute emails:* the client email address for sending invoice disputes. Conditions invoking a dispute are configured in [Administration\System Settings\Common](#)^[35]
- *Generate 1 invoice details file per product type (client/vendor):* when selected, the traffic details for products of the same product type will be combined in a single file. The file template is configured using the template type *Invoice detail (multiple charges)* in [Administration\Template manager](#)^[75]

Finance parameters

In minimum invoice amount, USD:	<input type="text" value="50"/>
Out minimum invoice amount, USD:	<input type="text" value="50"/>
In tax rate, %:	<input type="text" value="20"/>
Out tax rate, %:	<input type="text" value="20"/>
In tax scheme:	<input type="text" value="Tax included"/> ▼
Out tax scheme:	<input type="text" value="Tax included"/> ▼
Cross-monthly invoice splitting:	<input type="text" value="Default"/> ▼
Min percent mismatch to invoke a dispute, %:	<input type="text" value="15"/>
Min absolute mismatch to invoke a dispute:	<input type="text" value="30"/>
Unconditional invoice dispute threshold:	<input type="text" value="15"/>

Add tab, Finance parameters

Finance parameters:

- *In/Out minimum invoice amount*: threshold of the total invoice amount below which the invoices are not created. Instead, the System will add the pending amount to the next invoice of the same customer (in this case the timeframe indicated in the new invoice will include the intervals of both invoices, and the traffic details will also be combined)
- *In/Out tax rate, %*: if the invoice amount includes taxation, this parameter defines the percent of the tax (decimal numbers can be used)
- *In/Out tax scheme*:
 - *Tax included*: if the tax is included into the rate, the invoice is calculated as derivative of $(Rate) \times (Volume)$
 - *Add tax % to estimated amount*: if the tax is not included in the rate, the invoice is calculated as a sum of $(Rate) \times (Volume) + (Rate) \times (Volume) \times (tax)$
 - *Document only tax inclusion*: the tax is included in the invoice but is not actually charged
 - *Add country based tax*: when selected, the value is taken from the *Tax, %* column of the [Reference books\Countries and regions\Countries](#)^[175]. When this option is selected, the field *In/Out default tax rate, %* field appears. Specify the tax rate that will be used if no tax is found for a specific country in the Reference book

NOTE: The new tax scheme will be applied if the System setting *EDR import version (1 - old, 2 - new)* is set to 2. If the setting is configured as 1, the *Add tax % to estimated amount* scheme will be applied instead of it.

- *Cross-monthly invoice splitting*: serves to configure the invoicing method based on partner preferences. Possible values are:
 - *Default*: as set in the same name parameter in [Administration\System settings\Financial module](#)^[45]
 - Yes
 - No. See also the [Alaris YouTube](#) video
- *Min percent mismatch to invoke a dispute*: the minimum relative difference (in per cent) between the System owner's and partner's invoice amounts to start a dispute (*Presented amount* and *Due amount*). Both this parameter and the parameter *Min absolute mismatch to invoke a dispute* should be surpassed to change the invoice status to *Disputed*
- *Min absolute mismatch to invoke a dispute*: the minimum absolute difference between the System owner's and partner's invoice amounts to start a dispute (*Presented amount* and *Due amount*). Both this parameter and *Min percent mismatch to invoke a dispute* must be exceeded to change the invoice status to *Disputed*. In case one of the parameters is set to *null*, only the other one will be taken into account for assignment of the *Disputed* status. In case both parameters are null, the invoice status can be set to *Disputed* only manually
- *Unconditional invoice dispute threshold*: the minimum absolute difference between the System owner's and partner's invoice amounts to start a dispute, regardless of the parameter *Min absolute mismatch to invoke a dispute*. If set to *null*, the parameter is not used

NOTE: If any of the above three fields is left empty, the respective values will be taken from System settings. Additionally, the null value can be set in the System settings, in which case no disputes will be invoked. See also the [Alaris YouTube](#) video.

Rate notification periods

In increase notification, days*:	<input type="text" value="7"/>
Out increase notification, days*:	<input type="text" value="7"/>
In decrease notification, days*:	<input type="text" value="0"/>
Out decrease notification, days*:	<input type="text" value="0"/>
In new rate notification, days*:	<input type="text" value="0"/>
Out new rate notification, days*:	<input type="text" value="0"/>
In close rate notification, days*:	<input type="text" value="7"/>
Out close rate notification, days*:	<input type="text" value="7"/>

Add tab, Rate notification periods

Rate notification periods: the minimum number of days for notifying a vendor or customer about any upcoming rate changes. Notifications sent at shorter notice may be rejected by the recipient

- *In/Out increase notification, days*: number of days for an advance rate increase notice to be sent from vendor/to customer
- *In/Out decrease notification, days*: number of days for an advance rate decrease notice to be sent from vendor/to customer
- *In/Out new rate notification, days*: number of days for a notice about new rates
- *In/Out close rate notification, days*: number of days for a notice about closing rates

Notifications

Invoice delivery option:	<input type="text" value="Link"/>
Payment alert:	<input type="text" value="System default"/>
Default invoice emails:	<input type="text" value="fin@pocodiner.es"/>
Default rate change emails:	<input type="text" value="fin@pocodiner.es"/>
Default technical emails:	<input type="text" value="admin@pocodiner.es"/>
Account alert emails:	<input type="text" value="man@pocodiner.es"/>

Extra

Balance limit, EUR:	<input type="text" value="10000"/>
Comments:	<input type="text"/>

Add tab, Notifications and Extra

Notifications:

- *Invoice delivery option*: specify how the invoices must be delivered (a filter can be used to easily locate the appropriate value):
 - *System default*: deliver as configured in the *Invoice delivery options* parameter in [Administration\System settings\Financial module](#)^[45]
 - *Do not send*: no invoice is delivered
 - *Attachment*: the invoice is sent in an email with two attachments, one containing a cover letter in PDF format and the other a MS Excel file with traffic summary details
 - *Link*: the email contains links to the two invoice files (PDF cover letter and MS Excel traffic summary details). The files are stored on the System server; once the client clicks on the links the message status is changed to *delivered*.

NOTE: This is a reliable way to know that the invoice has been received by the partner.

- *Attachment and link*: the invoice email contains both the attached files (PDF cover letter and MS Excel traffic summary details) and the links to download them. Once the client clicks on the links the invoice status is changed to *delivered*. Find out more about the feature in the [Alaris YouTube video](#)
- *Separate emails*: the PDF cover letter and MS Excel traffic summary details are sent in two separate messages
- *Payment alert*: sending notification on received (confirmed) payment to the partner (*System default*, *Do not send*, *Send to account alert emails*, *Send to default invoice emails*). *System default* is defined by the *Send payment confirmation to partner* parameter in the [Administration\System settings\Financial module](#)^[45]. A filter can be used to easily locate the appropriate value.

NOTE: A copy of the alert is sent to the carrier's account manager even if the manager's email address is not specified as a payment alert recipient. Learn more in [Alaris YouTube video](#).

- *Default invoice emails:* emails for sending invoices to. Several comma- or semicolon-separated addresses may be indicated. If the field is empty, invoices are sent to the carrier's user email addresses, defined:
 - on the [Administration\Users](#)^[97] page (only users with the checked *Send invoices* flag are considered)
 - in the *Email address list to CC finance-related emails* parameter defined in the [Administration\System settings\Financial module](#)^[45]
- *Default rate change/technical/account alert emails:* email addresses of the partners' financial, rate and technical departments, where rate increase/change, monitoring alerts, balance limit reached alerts and other notifications are sent:
 - *Default rate change emails:* the maximum field length is 1024 symbols. If a user attempts to enter more than 1024 symbols an error message will be displayed. If the field is empty, rate change notifications are sent to the carrier's user email defined on the [Administration\Users](#)^[97] page (only users with the checked *Send rate updates* flag are considered)
 - The *Default technical emails* field contains email addresses to send notifications configured in the [Administration\Service notifications](#)^[32] page. If the field is empty, partners will receive no notifications
 - If the *Account alert emails* field is empty, the alerts are sent to the email address of the primary System administrator and to the email indicated in the *Credit and balance alarms default email* parameter in the [Administration\System settings\Financial module](#)^[45]
- *Include in service notifications:* the checkbox serves to allow or disallow sending service notifications to the emails set in the *Default technical emails field*. When deselected, service notifications will not be sent to the mentioned emails. Find out more about the feature in the [Alaris YouTube video](#)

Extra:

- *Comments:* arbitrary comments

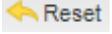
NOTE: If a user does not have one of the following permissions: *System owner: No restrictions / View all data / View and edit all data (except System owner parent rates)*, all agreements belonging to accounts of other managers will have their email data hidden.

Custom parameters

Client agreement manager:	admin
Document link:	
Vendor agreement manager:	admin

Custom parameters

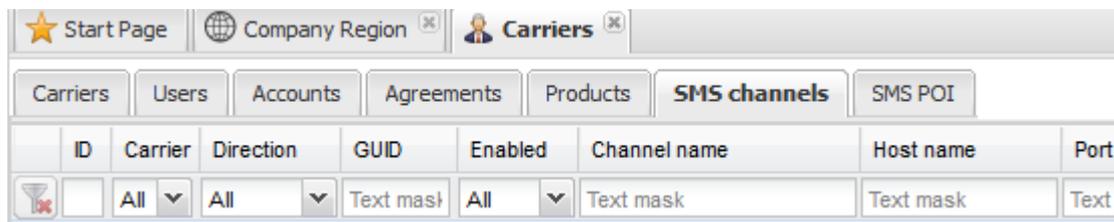
- *Client agreement manager, Vendor agreement manager*: serve to set the managers for each traffic direction. These fields can be used as layers in [SMS\Analytics](#)^[213] allowing the user to view the data by *Analytics client manager* and *Analytics vendor manager*

When through with defining the parameters, click  to confirm or  to discard the settings. Click  to delete the selected record.

5.5 SMS channels

SMS channels represent physical connections between carriers used for SMS transmission and receipt (analogue to “Bind” in SMPP). All created channels are automatically mirrored to the switch if all the necessary parameters are specified in the [System Settings\SMS](#)^[56].

The SMS channels page contains information on the channels registered in the System.



ID	Carrier	Direction	GUID	Enabled	Channel name	Host name	Port
	All	All	Text mask	All	Text mask	Text mask	Text

SMS channels

Use text masks or drop-down lists under the column headers to filter the records in the table.

The right panel contains the *Add* and *Edit* tabs. The *Add* tab contains the following fields.

+ Add
 ✎ Edit

General

Carrier*:

Partner direction:

Bind type*:

Concatenated messages parameters

Stateful concatenated messages processing

All segments submit timeout, sec.:

Fast response for every segment:

Reject incomplete messages:

Enabled

Channel name*:

Use optional field for receipt

List of optional fields*:

<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	0x001e - Received message id
<input checked="" type="checkbox"/>	0x0423 - Network error code
<input checked="" type="checkbox"/>	0x0424 - Message payload
<input checked="" type="checkbox"/>	0x0427 - Message state
<input checked="" type="checkbox"/>	0x1416 - Optional mccmnc

Log level:

Repush delivery reports

Track MO responses to MTs

Add tab, General

General:

- *Carrier*: select a carrier to which a channel is associated from the drop-down list
- *Partner direction*: select a direction from the drop-down list (*Client/Vendor*, *Client* or *Vendor*)
- *Protocol*: SMPP or HTTP (available for selection if *Partner direction* is *Vendor*)
- *Send text in payload* (available when *Partner direction* = *Vendor*, *Protocol* = *SMPP*): when enabled, the SMS switch will always send the message text in the TLV field `smpp_payload`. Normally the text is contained in the `short_message` field of the SMPP packet, however, some vendors require that the text is sent in the `message_payload` field. See also the [Alaris YouTube](#) video
- *Bind type*: possible values: *TX* (transmit), *RX* (receive), *TR* (transmit/receive – recommended for interconnection with vendors), *Auto* (as specified by the party establishing connection, recommended for interconnection with clients; available if the *Partner direction* is *Client*)

- *Stateful concatenated messages processing* (available only when *Partner direction = Client* and *Bind type = auto*): when enabled, the channel is used to send all segments of an SMS through a single vendor. See also the [Alaris YouTube video](#). When enabled, the following three parameters are available:

NOTE: It is also possible to enable this as a System-wide option. For this purpose, activate the parameter *Enable system-wide stateful concatenated messages processing* in [Administration\System settings\SMS](#)^[56].

- *All segments submit timeout, sec.:* defines the period in seconds for all the segments of a concatenated message to be received by the switch and processed as single SMS, otherwise the switch processes them like separate submits. The same parameter can be applied on the System level (in [Administration\System settings\SMS switch](#)^[70]). The parameter on the channel level has priority over the System setting. The default value is 10
- *Fast response for every segment (0 - no, 1 - yes):* specifies if successful submit responses (for each segment) should be sent to the client before routing takes place. Note that in case no routes are found, UNDELIV reports will be sent out. Allowed values are 0 (disabled, which is default behavior) and 1 (enabled). The same parameter can be applied on the System level (in [Administration\System settings\SMS switch](#)^[70]). The parameter on the channel level has priority over the System setting
- *Reject incomplete messages (0 - no, 1 - yes):* when enabled, the System sends failed submit responses if some segments are not received until the timeout set in *Concatenated messages: All segments submit waiting period timeout*. The allowed values are 0 (the SMS switch processes an incomplete set of segmented SMS messages as separate ones) or 1 (the SMS switch sends a failed response (ESME_RSUBMITFAIL) to the client and does not process these submits further). The same parameter can be applied on the System level (in [Administration\System settings\SMS switch](#)^[70]). The parameter on the channel level has priority over the System setting
- *Send bind to client side* (active when *Partner direction* is *Client*; *Bind type* is *RX*, *TX* or *TR*): checkbox that allows sending a bind request to the client (may come instrumental for some types of equipment)

NOTE: Select this checkbox only if requested by the partner.

- *Enabled:* identifies channel activity. A channel can be temporarily disabled for a number of reasons, for example, for error correction purposes
- *Channel name:* arbitrary name defined by the user (this name is displayed in [Reports](#)^[178] and [SMS\Analytics](#)^[213])
- *Use optional field for receipt:* check to use the optional fields in the delivery report (the list of fields can be selected in the parameter *List of optional fields*)
- *List of optional fields* (available if the *Use optional field for receipt* checkbox is selected): serves to specify the fields that must be sent to the client in the delivery report, and exclude fields that are not required or supported. See also the [Alaris YouTube video](#)
- *Log level:* the log level for the channel. Valid values include: 0 – log disabled; 1 – log enabled

NOTE: The parameter is currently inactive.

- *Repush delivery reports:* select the checkbox to store delivery reports while the channel is offline and send them when it goes online. If the checkbox is deselected, delivery reports will not be sent if the channel is offline

- *Track MO responses to MTs*: select to save the sender/recipient number pairs that were successfully sent to the vendor. This feature allows setting identical number pairs to route MO messages to several clients simultaneously. When an MO message is received from any vendor, the System verifies that the numbers are saved in the memory. If the record is found, the received MO message will be sent to the client channel. If there is no record in the memory, the message is routed according to the Short code reference book. Note that if the checkbox is enabled and the client channel is offline, the channel option *Repush delivery reports* will be applied. The delivery waiting period for MO responses is set in the System parameter *Track MO responses to MT max waiting period, minutes* ([Administration\System settings\SMS switch](#)^[70])
- *Routing stop codes* (available for channels with *Partner direction: Vendor*): a comma-separated list of response codes. When the switch receives a code specified in the field, it will not reroute the message to the next vendor route. Along with standard SMPP submit_sm_resp codes, the field supports internal codes, for example: 2147483650 which means 'submit_sm_resp timeout'. If no submit_sm_resp was received within the timeout (default or on the channel level), the switch will not send the message through other vendors

Connection

Host name*:
 Port:
 Login:
 Password:
 System type:
 SSL type:
 Timeout:
 Local address*:
 No. of connections:
 Enquire_link_resp timeout, sec.:

Add tab, Connection (Partner direction=Vendor, Protocol=SMPP)

Connection:

If the *Partner direction* is *Vendor*:

- If *SMPP* is selected in the *Protocol* field, the following fields are active:
 - *Host name*: domain name or IP address for sending bind requests. The use of multiple IP addresses and masks in a single channel is not supported
 - *Port*: port for sending bind requests to
 - *Login* and *Password*: user name and password to be indicated in each bind request for authentication purposes (the *Password* field can contain up to 60 characters). Click to generate a password
 - *System type*: optional parameter used for authentication during binding. It categorizes the type of ESME that is binding to the SMSC; e.g. "VMS" (voice mail system) or "OTA" (over-the-air activation system)

- *SSL type*: select the version of the SSL protocol
- *Timeout*: submit_sm response timeout (for vendor channels). When the timeout expires, the SMS is switched to the next route. If left blank, the default value (30 seconds) is used (set in the switch configuration)
- *Local address*: enter the local IP address of the System's switch that will be used to connect to the vendor (in case several network interfaces on the switch server are employed)
- *No. of connections*: the number of binds established with vendors using the same credentials (login, password, IP address and port). This parameter comes instrumental when connecting to vendors that have limited throughput capacity per bind. The load is distributed between the binds in a round-robin pattern
- *Enquire_link_resp timeout, sec.* (available only if the *Partner direction* is *Vendor*): This parameter controls the response timeout to the enquire_link. The default value is 30 seconds. If the vendor failed to respond twice in a row, the connection with the channel is interrupted and further re-established. Find out more about the feature in the [Alaris YouTube video](#)

Connection

Login:	<input type="text" value="2b231uSik"/>
Password:	<input type="text" value="jjhykcpn"/> <input type="button" value="Generate"/>
URL Template:	<input type="text" value="http://192.169.18.234:38002/api?command=submit&ani=\$ani&dnis=\$dnis&username=\$username&password=\$password&message=\$text&serviceType=ssl"/>
	<p>Format: http://localhost:8000/api?ani=\$ani&dnis=\$dnis&username=\$username&password=\$password&message=\$text&command=submit&serviceType=\$serviceType&longMessageMode=\$messageMode\$ Address and port will be replaced with ones from the respective fields (Host name and Port). Possible messageMode values: cut (trim message text to 140 bytes) split (split message into several with UDH header) split_sar (split message into several with SAR) payload (send message with text in message_payload field)</p>
HTTP headers:	<input type="text"/>
POST template:	<input type="text"/>
Timeout:	<input type="text"/>
Local address*:	<input type="text"/> <input type="button" value="v"/>
No. of connections:	<input type="text" value="0"/>

Add tab, Connection (Partner direction=Vendor, Protocol=HTTP)

- If *HTTP* is selected, the following fields are active:
 - *Login* and *Password*: user name and password to be indicated in each bind request for authentication purposes (the *Password* field can contain up to 60 characters). Click to generate a password
 - *URL template*: the vendor's URL template. Specify the IP address and port instead of the <localhost:8000> in the template string (for vendor channels only). For client HTTP channels, no URL template is needed. The client must comply with the following URL format [http://localhost:8000/api?ani=\\$ani&dnis=\\$dnis&username=\\$username&password=\\$password&message=\\$text&command=submit&serviceType=\\$serviceType\\$](http://localhost:8000/api?ani=$ani&dnis=$dnis&username=$username&password=$password&message=$text&command=submit&serviceType=$serviceType$) (replace <localhost> with the System's switch IP address and <8000> with 8001)

NOTE: Along with other markers, the marker \$hexText\$ can be used in the URL template. It is replaced by text in the hex format.

- *HTTP headers*
- *POST template:* when used, verification of the URL template (usage of all the required markers) is disabled. When making an HTTP POST request, the URL from the *URL template* field will still be used while the *POST template* data will be placed into the body. The POST template must be provided by the vendor and may look like this: \$dnis\$\$ani\$
- *Timeout:* submit_sm response timeout (for vendor channels). When the timeout expires, the SMS is switched to the next route. Learn more about the feature in [Alaris YouTube video](#)
- *Local address:* enter the local IP address of the System's switch that will be used to connect to the vendor (in case several network interfaces on the switch server are employed)
- *No. of connections:* the parameter is irrelevant for HTTP vendors. Ignore it

NOTE: For client channels, the number of interconnections with the same credentials is unlimited.

Connection

Host name*:
 Login:
 Password:
 System type:
 SSL type:
 DLR push URL template:
 MO push URL template:
 Send submit_sm_resp before routing

Add tab, Connection (Partner direction=Client)

If the *Partner direction* is *Client*:

- *Host name:* IP address for sending bind requests. The use of multiple IP addresses in a single channel is not supported; however, a subnet mask can be used, e.g. 1.2.3.4/24
- *Login and Password:* user name and password to be indicated in each bind request for authentication purposes (the *Password* field can contain up to 60 characters). Click to generate a password
- *System type:* optional parameter used for authentication during binding. It categorizes the type of ESME that is binding to the SMSC; e.g. "VMS" (voice mail system) or "OTA" (over-the-air activation system)
- *SSL type:* select the version of the SSL protocol
- *DLR push URL template, MO push URL template:* the parameters serve to set up deliver/MO callbacks respectively for client HTTP channels. The format is restricted; please use the following markers and examples in order for callbacks to work:

- Supported markers: \$message_id\$, \$delivery_status\$, \$result_code\$ (err code from deliver_sm), \$mccmnc\$ (from the reference book), \$delivery_time\$ (received in vendor's deliver_sm), \$system_delivery_time\$ (date and time when deliver_sm from vendor was received), \$message\$ (text from deliver/MO), \$ani\$ (sender ID), \$dnis\$ (destination address)

Examples of requests that can be used in these fields:

DLR push URL template

- GET request:

```
curl 'https://client.address.com/api/callback/api?msg-id=$message_id&state=$delivery_status&reason-code=$result_code&to=$dnis&time=$done_date&msg-id=$meesageId&mcc=$mcc&mnc=$mnc'
```

- POST request:

```
curl -X POST 'https://client.address.com/api/callback/api?' -d 'msg-id=$message_id&state=$delivery_status&reason-code=$result_code&to=$dnis&time=$done_date&msg-id=$meesageId&mcc=$mcc&mnc=$mnc'
```

MO push URL template

- GET request:

```
curl 'https://sms.client.com/api?message=$message&to=$dnis&from=$ani&sms-id=$message_id'
```

- POST request:

```
curl -X POST 'https://sms.client.com/api?' -d 'message=$message&to=$dnis&from=$ani&sms-id=$message_id'
```

NOTE: Examples of vendor requests sent to to the System:

DLR push URL template:

- GET request:

```
curl 'http://address:8003/api?dnis=123&ani=123&username=esh123&password=esh321&command=deliver&dlvrMsgId=1221145&dlvrMsgStat=DELIVRD'
```

- POST request:

```
curl -X POST 'http://address:8003/api?' -d 'dnis=123&ani=123&username=esh123&password=esh321&command=deliver&dlvrMsgId=1221145&dlvrMsgStat=DELIVRD'
```

MO push URL template

- GET request:

```
curl 'http://address:8003/api?dnis=123&ani=123&username=esh123&password=esh321&command=mo&text=1221145'
```

- POST request:

```
curl -X POST 'http://address:8003/api?' -d 'dnis=123&ani=123&username=esh123&password=esh321&command=mo&text=1221145'
```

This is the default format that can be changed by request. To change the format, contact the Alaris technical support team and provide a sample request and format description.

- *Send submit_sm_resp before routing*: when enabled, the SMPP client will receive submit_sm_resp before a routing request is made, which will decrease the delay between the request and response. In case there are no available routes for a client submit, it will receive a deliver_sm with UNDELIV status almost immediately after submit_sm_resp with 0x00 code

HTTP API status request

Status template:	http://1.2.3.4:8001/api? &username=\$username&password= \$password&command=query&service Type=\$serviceType&messageId=\$m essageId\$
Ⓢ SMS status request periods:	5,20,60,120
Final SMS status:	DELIVRD|REJECTD|FAILED|

Add tab, HTTP API status request

HTTP API status request: the section defines the status request parameters of HTTP SMS to the vendor:

- *Status template*: URL used for getting the SMS status (for outgoing channels only; must be provided by the vendor). NOTE: for incoming connections leave the field blank and provide the client with the following status template string: [http://1.2.3.4:8001/api?&username=\\$username&password=\\$password&command=query&serviceType=\\$serviceType&messageId=\\$messageId](http://1.2.3.4:8001/api?&username=$username&password=$password&command=query&serviceType=$serviceType&messageId=$messageId) (the client must replace 1.2.3.4 with the System's IP address; the port is normally 8001 but if necessary check it with the Alaris support team)
- *SMS status request periods*: serves to set the number and periods of requests (the periods are set as numbers separated by either comma or blank space). The default value is 5,15,60. Up to 4000 symbols can be inserted. Positive integer values are allowed, negative values will trigger an immediate request sent to a vendor. If the field is left empty, standard periodicity settings will be applied to the SMS that are configured in the System parameter *SMS status request periods* (also separated by either comma or blank space, see [Administration\System settings\SMS](#)⁽⁵⁶⁾). For example, if the user specifies 5 5 5 in the *SMS status request periods* parameter, the SMS switch will request the status from the vendor three times every 5 seconds (or less than three times if an expected status is received earlier). If both the channel and System settings are left empty (*null*), no request will be sent to the vendor. See also the [Alaris YouTube](#) video
- *Final SMS status*: SMS status the receipt of which will stop further status requests. Several |-separated statuses can be indicated.

NOTE: Standard SMPP 3.4 statuses (DELIVRD, REJECTD) must be used here. If the vendor sends custom statuses, the switch must be configured to translate them to the standard format.

Message parameters

addrTON:	<input type="text" value="Unknown (0)"/>
addrNPI:	<input type="text" value="Unknown (0)"/>
addrRange:	<input type="text"/>

Add tab, Bind parameters*Bind parameters:*

- *addrTON*: the type of sender ID. Select Alphanumeric (5) if planning to transfer messages from alpha senders; select Unknown (0) if only messages from numeric senders will be transmitted
- *addrNPI*: defines the Numeric Plan Indicator (NPI) to be used in the SMS address parameters. Possible values: Unknown, ISDN (E163/E164), Data (X.121), Telex (F.69), Land Mobile (E.212), National, Private, ERMES, Internet (IP), WAP Client ID. The default value is Unknown and normally there is no need to change it
- *addrRange*: optional parameter used to specify a set of SME addresses serviced by the ESME client. A single SME address may also be specified. UNIX Regular Expression notation should be used to specify a range of addresses. Messages addressed to any destination in this range shall be routed to the ESME

Limitations

Reject too long messages

Client capacity (sms/sec):

Client overflow buffer size:

ⓘ Vendor capacity (sms/sec):

ⓘ Submit interval:

Vendor overflow buffer size:

ⓘ Vendor window size:

Default data coding scheme:

Allowed data coding list*:

<input checked="" type="checkbox"/>	0: SMSC Default Alphabet (S...
<input checked="" type="checkbox"/>	1: IA5 (CCITT T.50)/ASCII (AN...
<input checked="" type="checkbox"/>	2: Octet unspecified (8-bit bina...
<input checked="" type="checkbox"/>	3: Latin 1 (ISO-8859-1)
<input checked="" type="checkbox"/>	4: Octet unspecified (8-bit bina...

Selected 13 of 13

Transcode messages in unsupported encodings:

Force transcoding to

Add tab, Limitations (part 1)

Limitations:

- *Reject too long messages*: select the checkbox to reject SMS whose length exceeds the preset limit (based on the GSM specification, the limit is 160 symbols for GSM 7bit, 140 symbols for GSM 8bit, and 70 symbols for GSM 16bit.) The limit can be configured in the internal switch settings
- *Client capacity (sms/sec)*: allowed number of SMS per second for client. When exceeded, and if the value of the parameter *Client overflow buffer size* is not set, SMS messages are rejected
- *Client overflow buffer size*: allowed number of SMS in the storage buffer. In case when the *Client capacity* is exceeded, all new incoming SMS are stored in a buffer. If the buffer is overflowed, all the following SMS are rejected
- *Vendor capacity (sms/sec)*: allowed number of SMS per second for vendor. When exceeded, and if the value of the parameter *Vendor overflow buffer size* is not set, SMS messages are rejected
- *Submit interval* (in seconds): this parameter is related to *Vendor capacity (sms/sec)* and limits how often a message can be sent through the channel

NOTE: It is recommended to set non-zero values in both *Vendor capacity (sms/sec)* and *Submit interval* to prevent rejecting messages that are sent to the route when multiple messages are processed with a small delay.

- *Vendor overflow buffer size:* allowed number of SMS in the storage buffer. In case the Vendor capacity is exceeded, all new outgoing SMS are stored in a buffer, to be sent when the load on the vendor channel is back to normal. If the buffer is overflowed, all the following SMS are routed to the next-in-line vendor
- *Vendor window size:* allowed number of pending messages awaiting the vendor's response (submit_sm packets without submit_sm_resp received). If, for example, the value of Vendor window size is 10, the System will not send the eleventh message, pending receipt of at least one submit_sm_response message from vendor side. If no value is set, the default value will be specified (taken from the System parameter *Default vendor window size*, [Administration\System settings\SMS switch](#) ⁽⁷⁰⁾)

NOTE: If the vendor has a large number of pending messages awaiting response, sending traffic to the vendor is unreasonable. Once the *Vendor window size* is reached, the System stops sending traffic to the vendor until the number of pending messages decreases.

- *Default data coding scheme:* serves to define the character set that the partner uses/expects when the data coding 0 is used. For client channels the parameter will make the switch decode the message sent with DC 0 using the encoding defined in this option. For example, if the *Default data coding scheme* is set to *Latin-1 (DC 3)* and the client sends a message with DC 0 then the vendor will receive the same message with DC 3. For vendor channels the parameter will make the switch send the message with DC 0 to the vendor in case both DC 0 and the character set selected as the *Default data coding scheme* are not chosen in the *Allowed data coding list*. For example, if the vendor requested you to send all messages in Latin-1 (DC 3) with DC 0 then it is necessary to remove 3 from the list of available data codings and all such messages will be sent encoded in Latin-1 but with DC 0. Learn more about this feature in the [Alaris YouTube video](#).

NOTE: The parameter is available when 1) the *Partner direction* is *Client/Vendor* or *Client* and *Bind type* is *TX* or *TR*; 2) the *Partner direction* is *Client* and *Bind type* is *Auto*; 3) when the *Partner direction* is *Vendor*, the *Protocol* is *SMPP* and *Bind type* is *TX* or *TR*.

- *Allowed data coding list:* the parameter serves to limit the data codings that will be sent through the channel. If the message is encoded in the data coding that is not allowed in the list, it will be rejected with the status **INCOMPATIBLE DATA CODING**
- *Transcode messages in unsupported encodings (available when the Partner direction is Client/Vendor and Bind type is TX or TR):* the following values are possible:
 - *No transcoding:* the text is not changed; the message is passed using this channel in case the data coding of this message is selected in the *Allowed data coding list*
 - *Only lossless transcoding to:* allows transcoding the message whose data coding is not included in the *Allowed data coding list*. Select the transcoding in the drop-down list that appears. Furthermore, the SMS switch has an internal configuration file that contains translation rules for the symbols not available in the target encoding

NOTE: To configure symbol-based translation for specific channels and character sets, contact the Alaris technical support team.

- *Force transcoding to:* same as *Only lossless transcoding to*, except that symbols not found in the target encoding are replaced with question marks

Allowed src ToN:

<input checked="" type="checkbox"/>	undefined
<input checked="" type="checkbox"/>	Unknown (0)
<input checked="" type="checkbox"/>	International (1)
<input checked="" type="checkbox"/>	National (2)
<input checked="" type="checkbox"/>	Network Specific (3)

Selected 7 of 7

Allowed src NPI:

<input checked="" type="checkbox"/>	undefined
<input checked="" type="checkbox"/>	Unknown (0)
<input checked="" type="checkbox"/>	ISDN (1)
<input checked="" type="checkbox"/>	Data (3)
<input checked="" type="checkbox"/>	Telex (4)

Selected 9 of 9

Allowed dst ToN:

<input checked="" type="checkbox"/>	undefined
<input checked="" type="checkbox"/>	Unknown (0)
<input checked="" type="checkbox"/>	International (1)
<input checked="" type="checkbox"/>	National (2)
<input checked="" type="checkbox"/>	Network Specific (3)

Selected 7 of 7

Allowed dst NPI:

<input checked="" type="checkbox"/>	undefined
<input checked="" type="checkbox"/>	Unknown (0)
<input checked="" type="checkbox"/>	ISDN (1)
<input checked="" type="checkbox"/>	Data (3)
<input checked="" type="checkbox"/>	Telex (4)

Selected 9 of 9

Allowed sender ID pattern:

Add tab, Limitations (part 2)

- *Allowed src/dst ToN/NPI*: deselect the ToN/NPI not supported by the partner's equipment (traffic containing the deselected values will not be routed through the channel)
- *Allowed sender ID pattern*: specify a regular expression to be matched by origination address in order for the traffic to be sent through the channel

Resends

No. of resends:

Resend interval:

Rerouting

Reroute statuses:

<input type="checkbox"/>	EXPIRED
<input type="checkbox"/>	DELETED
<input type="checkbox"/>	UNDELIV
<input checked="" type="checkbox"/>	UNKNOWN
<input type="checkbox"/>	REJECTD

Add tab, Resends and Rerouting

Resends: this group of parameters defines how to resend SMS if the vendor bind is down, or if the bind responds with a code suitable for rerouting. The codes are set in the internal configuration of the router and can be changed by the Alaris support team if necessary:

- *No. of resends*: the number of resend attempts. Once the number of attempts is reached, the System will go to the next-in-line vendor
- *Resend interval*: the interval between resend attempts in seconds

Rerouting:

- *Cnf statuses*: select delivery statuses for rerouting of SMS. If the vendor returns one of the selected statuses, the System will send the SMS through the next-in-line vendor

Click the  **Clone** button to create a duplicate of the configured channel. This is helpful in configuring another channel with similar parameters. When through with defining the parameters, click  **Submit** to confirm or  **Reset** to discard the settings. Click  **Delete** to delete the selected record.

NOTE: Resending logic based on the value of the *validity_period* field can be activated. When a client channel has this option enabled, in case all the vendors rejected a message, failed to respond within timeout or were offline during the process, the *submit* will be put into a dedicated pool in case its validity period is yet to expire. It will be resent several times with various configurable delays. To enable this mode for specific client channels, contact the Alaris technical support team.

3.5.18 The uniqueness of a newly created channel is checked by a combination of the following fields: *IP address, Port, GUID, Connection type* and *Local address*. See also the [Alaris YouTube](#) video.

5.6 SMS POI

An SMS POI (point of interconnection) is a logical entity that links a channel to a product. It allows differentiation between service quality levels for billing purposes - for example, when a single channel is used to send traffic for two products with different SLA. One channel may be linked to a number of different POIs with varying *Service type* parameter, which is an alphanumeric value set by the user similar to the technical prefix used for the same purposes in voice billing.

The *SMS POI* page contains all the information on the POIs registered in the System.

Carriers	Users	Accounts	Agreements	Products	SMS channels	SMS POI																																				
						<table border="1"> <thead> <tr> <th>ID</th> <th>Carrier</th> <th>Product name</th> </tr> </thead> <tbody> <tr> <td></td> <td>All</td> <td>Text mask</td> </tr> <tr> <td>10152</td> <td>SMS Vendor 6</td> <td>SMS Vendor 6 - Wholesale</td> </tr> <tr> <td>10062</td> <td>SMS Carrier 2</td> <td>SMS Carrier 2 - Wholesale</td> </tr> <tr> <td>10061</td> <td>SMS Carrier 2</td> <td>SMS Carrier 2 - Wholesale</td> </tr> <tr> <td>10080</td> <td>Test_Client</td> <td>Test_Client - Wholesale</td> </tr> <tr> <td>10082</td> <td>Test_Vendor</td> <td>Test_Vendor - Wholesale</td> </tr> <tr> <td>10083</td> <td>SMS Vendor 2</td> <td>SMS Vendor 2 - Wholesale</td> </tr> <tr> <td>10104</td> <td>SMS Carrier 3</td> <td>SMS Carrier 3 - Wholesale</td> </tr> <tr> <td>10103</td> <td>SMS Vendor 1</td> <td>SMS Vendor 1 - Wholesale</td> </tr> <tr> <td>10105</td> <td>SMS Carrier 3</td> <td>SMS Carrier 3 - Wholesale</td> </tr> <tr> <td>10101</td> <td>SMS Vendor 1</td> <td>SMS Vendor 1 - Wholesale</td> </tr> </tbody> </table>	ID	Carrier	Product name		All	Text mask	10152	SMS Vendor 6	SMS Vendor 6 - Wholesale	10062	SMS Carrier 2	SMS Carrier 2 - Wholesale	10061	SMS Carrier 2	SMS Carrier 2 - Wholesale	10080	Test_Client	Test_Client - Wholesale	10082	Test_Vendor	Test_Vendor - Wholesale	10083	SMS Vendor 2	SMS Vendor 2 - Wholesale	10104	SMS Carrier 3	SMS Carrier 3 - Wholesale	10103	SMS Vendor 1	SMS Vendor 1 - Wholesale	10105	SMS Carrier 3	SMS Carrier 3 - Wholesale	10101	SMS Vendor 1	SMS Vendor 1 - Wholesale
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10080	Test_Client	Test_Client - Wholesale																																								
10082	Test_Vendor	Test_Vendor - Wholesale																																								
10083	SMS Vendor 2	SMS Vendor 2 - Wholesale																																								
10104	SMS Carrier 3	SMS Carrier 3 - Wholesale																																								
10103	SMS Vendor 1	SMS Vendor 1 - Wholesale																																								
10105	SMS Carrier 3	SMS Carrier 3 - Wholesale																																								
10101	SMS Vendor 1	SMS Vendor 1 - Wholesale																																								

SMS POI

Use text masks or drop-down lists under the column headers to filter the records in the table.

Add
 Edit

Product*: PocoDinero Enterprises - Premium (USD) - Client ▼

Active from*: 2020.05.29 00:00:00 ▼

Active till*: 2100.01.01 00:00:00 ▼

SMS channel*: PocoPoco ▼

Login:

Service type:

Buffer size:

Buffer drain speed limit (sms/sec):

Force buffering mode:

Buffer mode schedule:

	Mode	
<input type="checkbox"/>	Passthrough mode	-
<input checked="" type="checkbox"/>	Buffering mode	+

All	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Mon	<input checked="" type="checkbox"/>	<input type="checkbox"/>																						
Tue	<input checked="" type="checkbox"/>	<input type="checkbox"/>																						
Wed	<input checked="" type="checkbox"/>	<input type="checkbox"/>																						
Thu	<input checked="" type="checkbox"/>	<input type="checkbox"/>																						
Fri	<input checked="" type="checkbox"/>	<input type="checkbox"/>																						
Sat	<input checked="" type="checkbox"/>	<input type="checkbox"/>																						
Sun	<input checked="" type="checkbox"/>	<input type="checkbox"/>																						

Reset
 Submit

Add tab

The right panel contains the *Add* and *Edit* tabs that allow adding new records or editing existing ones. To activate the *Edit* tab, click on the record in the table. Enter the required parameters in the corresponding fields. Fields marked with an asterisk (*) are required. The *Add* tab contains the following parameters:

- *Carrier*: carrier to which a POI is associated
- *Product*: product to which a POI is associated
- *Active from / Active till*: date and time of POI activation/deactivation
- *SMS channel*: channel the POI is linked to
- *Login*: shows the value from the *Username* field of the [Carriers\SMS channels](#) ¹²⁰ interface

- *Service type*: reference to the service quality level, which is an arbitrary parameter defined by the user (must contain less than 6 symbols to match the SMPP 3.4 requirements). Normally, this field is left blank

NOTE: It is possible to configure the receipt of all messages from a specific client SMS channel with any value in the *serviceType* field. To enable this, specify * (asterisk) as the value in the *Service type* field. Note that if you specify *, only one SMS POI can be created per SMS channel. If there are any other SMS POIs for the channel, remove them before creating the SMS POI with *Service type* = *.

- *Buffer size*: allowed number of messages in the storage buffer (for client products only). The buffer size is defined separately for each POI. When the buffer is full all new incoming messages are rejected. When defining buffer size values, keep in mind that each POI has its own separate buffer taking additional RAM memory; 1Gb of RAM can hold approximately 300,000 messages in a buffer
- *Buffer drain speed limit (sms/sec)*: speed at which messages are passed over from the buffer to the routing module for delivery. The actual speed of SMS passthrough is also limited by other factors and parameters:
 - the passthrough speed is not greater than half of the available capacity of the switch (available switch capacity = total estimated capacity, which is calculated by the switch every second MINUS current load of the switch). The estimated capacity limit is higher in priority than the limits defined at the POI level
 - limitation of the outgoing SMS speed defined for outgoing vendor channels that were chosen by the routing module for SMS delivery
- *Force buffering mode*: all incoming messages are buffered for later delivery. When this flag is unchecked, the system operates according to the Buffer mode schedule. NOTE: If the buffer is full, all incoming messages are rejected
- *Buffer mode schedule*: defines the logic of dealing with incoming SMS messages based on day of week and hour of day. Two variants are possible:
 - *Buffering mode*: incoming messages are not sent further, but stored in the internal buffer for later delivery
 - *Passthrough mode*: incoming messages are passed over to routing logics for delivery. Select the appropriate mode and click on the schedule to fill it

When through with defining the parameters, click  to confirm or  to discard the settings. Click  to delete the selected record.

6 Finance

All financial aspects associated with the carrier business are covered within the *Finance* section accessible from the *Start* menu. The System offers differentiated access to all financial data providing the System owner with a balanced coverage of financial status for each separate partner, account or product. The *Finance* section contains the following pages: *Charges*, *Invoices*, *Payments* and *Recurring fees*.

6.1 Charges

A charge is the amount charged by the System for a specific partner product for a single billing period. Charges serve as the basis for generating invoices. The *Finance\Charges* page contains information on charges generated by the System.

It has three panels: the *Charge filter*, the *Charges* table and the *Charge details*.

Charges				
Amount currency: <input type="text" value="Account currency"/>				
ID	Charge type	Contract company	Carrier	Account
-	-	-	-	-
22521	Manual	Alarislabs Demo 3.4	PocoDinero Enterprises	PocoDinero Enterprises (USD)
22522	Auto	Alarislabs Demo 3.4	MummyDoll Telecom	MummyDoll Telecom (USD)
22603	Auto	Alarislabs Demo 3.4	MummyDoll Telecom	MummyDoll Telecom (USD)
22523	Auto	Alarislabs Demo 3.4	MoreThanWords SMS	MoreThanWords SMS (USD)
22524	Auto	Alarislabs Demo 3.4	Ketchum & Killum	Ketchum & Killum (USD)
22525	Auto	Alarislabs Demo 3.4	Narnia Telecom	Narnia Telecom (USD)

Charges table

The *Charges* table displays the following information:

- *ID*: internal identification number
- *Charge type*: generated automatically or manually
- *Contract company*: the legal entity of the System owner on behalf of which it works with the carrier
- *Carrier*
- *Product*: a list of products that share the group index pertaining to the charge
- *Account*: account for which the charge is generated
- *Product type*: as configured on the [Reference books\Product types](#) ^[173] page (here: SMS)
- *Charge direction*: *Payable* or *Receivable*
- *Confirmed*: shows whether the charge is confirmed on the [Finance\Invoices](#) ^[142] page (Yes or No)
- *Group index*: the value of the *Group index* parameter in the [Carriers\Products](#) ^[103] page. Products having the same index will be invoiced in a single file. Invoices generated for products of the same account having the same integral part of the group index and different fractional parts, will have a single cover letter but separate traffic details files

- *Volume*: volume of the provided services
- *Units*: measurement units (here: SMS)
- *Service count*: number of service units (messages)
- *Amount*: the charge amount. Click on the link to open the *Charge details* table at the bottom of the page
- *System period*: charged period, displayed in the System owner’s time zone
- *Partner period*: charged period, displayed in the partner’s time zone
- *Correction ID*: identifier of the charge, for which this one is correctional (if this charge corrects a previous one)
- *Version*: version of the correction
- *Last update*: date and time of the latest calculation

The *Amount currency* drop-down list at the top of the table opens the list of currencies in which the charge can be displayed. By default the data is shown in the account currency. Other currencies are configured in the parameters *Finance first (second, third) currency* in [Administration\System settings\Financial module](#)^[43]. When all these parameters are empty, the *Amount currency* drop-down list is not displayed.

NOTE: The invoice and charge data is stored in financial cubes (for more detail on cubes, see [Reports\SMS Analytical cube status \(Administration\)](#)^[186]). After you configure the currencies in Finance first (second, third) currency, perform EDR rerating (see [SMS\EDR management\EDR Rerating](#)^[232]) and invoice recalculation (see [Finance\Invoices\Editing invoices](#)^[147]) for the appropriate period, otherwise all amounts in the *Charges* table will be zero.

The amounts are calculated at the exchange rate as of the date of each charge. For example, the charge dated October, 12 will be calculated at the exchange rate as of October, 12. The exchange rates are taken from the [Reference books\Currency exchange rates](#)^[171].

The  button in the upper left corner of the page toggles the *Charge filter* view.

Charge filter

Charge ID:

Contract company:

Carrier: 

Account:

Product type:

Charge direction:

Group index:

Billing period:

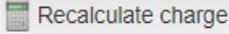
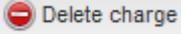
Period from:

Period to:

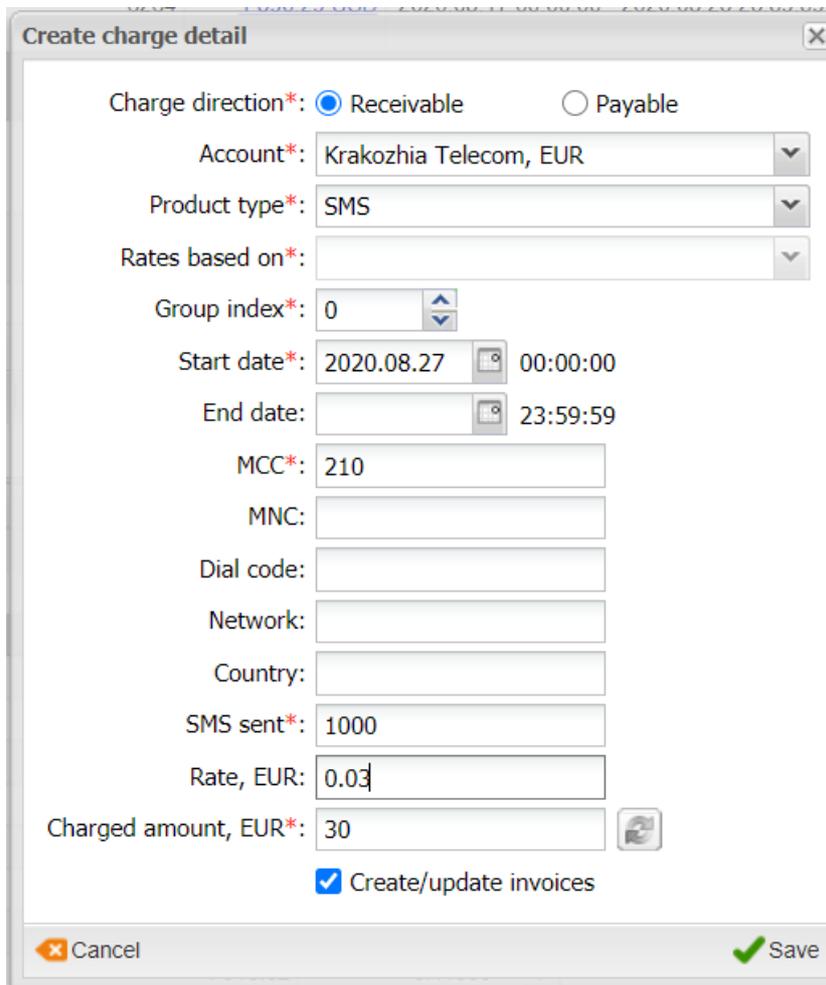
Charge filter

Enter the appropriate parameters and click  to filter the records in the *Charges* table. The  button opens the list of carriers that can be filtered by carrier name and region.

Click the  button on the lower tool bar of the *Charges* table to refresh the table.

Select a record in the *Charges* table and click the  button for recalculation of the selected charge. Click  if you wish to delete the selected charge.

The  button opens the *Create charge detail* window for adding a new charge manually. This form comes instrumental in manual creation of a new credit note or additional invoice – for example, when settling a dispute. For more detail on credit notes, see [Finance\Invoices\How it works](#) ^[142].



Create charge detail

If the charge for this account with the same direction, product type and group index already exists, a newly created charge is added to the existing one. The *Create charge detail* form contains the following parameters:

- *Charge direction:* Payable or Receivable
- *Account:* account for which the charge is generated
- *Product type*

- *Group index*: index of the charge grouping
- *Start date, End date*: charged period

NOTE: The charged period is set in full days.

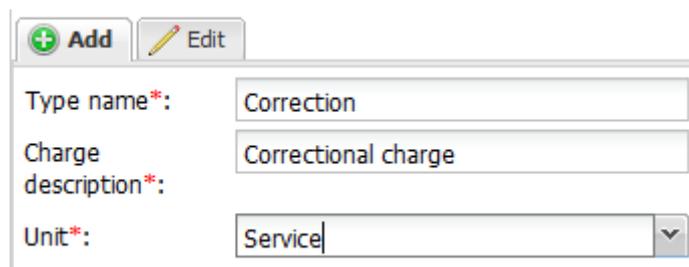
- *MCC*: Mobile Country Code

NOTE: If the MCCMNC used by the routing and billing is absent from the e.212/e.164 reference book, the interface and financial module will use the country name from the MCC record.

- *MNC*: Mobile Network Code
- *Network*: name of a destination, for example Russia Moscow fixed
- *Country*: name of the country
- *SMS sent*: number of sent SMS
- *Rate*: rate in the account currency
- *Charged amount*: total amount of the charge (in the account currency) is calculated automatically as a derivative of $(SMS\ sent) * (Rate)$. Click  to recalculate the amount if *SMS sent* or *Rate* is changed. The field also allows entering the amount manually
- *Create/update invoices*: if this checkbox is selected, the System creates an invoice for the charge or updates the invoice if it already exists. If the checkbox is deselected, the invoice amount will remain the same even if the charge for it is updated

Click  **Save** to confirm or  **Cancel** to discard the settings.

NOTE: For easier handling of correctional charges – that is, charges created to correct the partner balance - it is recommended to use a dedicated value in the *Product type* field. Go to [Reference books\Product types](#)¹⁷³, create a product type *Correction*, and in the *Unit* field select *Service*. When adding a correctional charge in the *Create charge detail* form, select *Service* in the *Product type* field. In this case, the *MCCMNC*, *Network* and *Country* fields will be hidden.



Add tab in Reference books/Product types

Click on the link in the *Amount* column to open the *Charge details* table at the bottom of the page.

Charge 19695 details 						
MCC	MNC	Network	Country	SMS sent	Rate, EUR	Charged amount, EUR
Total:				24023		185.47
202	05	Vodafone Gre...	Greece	2	0.00840	0.02
206	01	EastLink	Belgium	17	0.02490	0.42
206	05	Telenet	Belgium	1	0.00670	0.01
206	05	Telenet	Belgium	6	0.00770	0.05
206	05	Telenet	Belgium	6	0.01100	0.07
206	10	Mobistar S.A.	Belgium	5	0.01270	0.06
206	10	Mobistar S.A.	Belgium	22	0.01280	0.28
206	10	Mobistar S.A.	Belgium	1	0.03310	0.03
206	20	BASE	Belgium	5	0.01070	0.05

Charge details

The table displays details of the selected charge: MCC and MNC codes, network name, country, number of sent messages, rate and charged amount.

NOTE: Charge details for the *Product type = SMS pack* have the following columns: *Name, SMS included, Description, Volume, Rate and Charged amount.*

The bottom of the *Charge details* tab contains the following controls:

 **Add** - create a record for the charge detail

 **Edit** - edit the record

 **Clone** - a duplicate of the record. This is helpful in configuring another charge detail record with similar parameters

 **Delete** - delete the selected record

 **Show partner detail** - toggle the *Charge partner details* view that allows comparing the System owner's charge details with the partner data.

Charge partner details					
Destination	Dial code	Calls count	Duration	Rate, EUR	Charged amount
Total:					80
Greece				0.03	50
Russia				0.05	30

Page 1 of 1 | 200 rows | Clear | Import | Compare

Charge partner details

To make a comparison, click  to open the file parsing view.

File to import

Charges_partner1.xlsx

Import settings

Active sheet*: Partner charges

Start row: 2 fix row

Ignore errors

Import settings

In the *File to import* panel upload a file with partner charge details in the XLS, XLSX or CSV format.

In the *Import settings* view select the active sheet and specify the start row. Select *Ignore errors* to ignore errors during parsing.

Partner charges					
	MCC	MNC	Country	Network	Dial code
1	MCC	MNC	Country	Network	Dial code
[2]	202	211	Greece	Greece	30
3	202	212	Greece	Greece	200
4	204	6	Netherlands	Barablu Mobile	316590

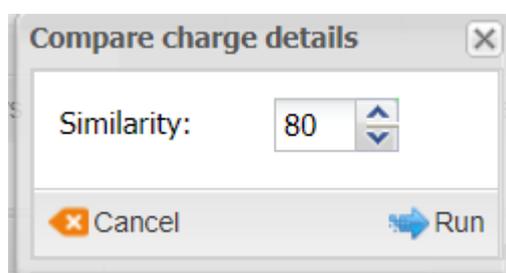
File preview

In the file preview tab assign the appropriate columns (the required columns are *MCC*, *MNC*, *Country*, *Network*, *Dial code* for SMS and *SMS included*, *Volume*, *Description* for SMS packs). Click  to import the file. Its data will appear in the *Charge partner details* view as shown in the same-name figure above.

To compare the System owner's charge details with the partner's data, click . In the *Similarity* field specify the allowed percentage of similarity between the System owner's and partner's data (the default value is taken from the System parameter *Default detail comparison match percentage* in [Administration\System settings\Financial module](#)^[45]). If the similarity of the owner's and partner's data is less than the field value, records are considered as different; otherwise they are considered as "same".

NOTE: The similarity is analyzed by the *MCC* field for products of the *SMS* type, by the *Name* field for products of the *SMS pack* type and by the *Service description* field for custom product types.

Click .



Compare charge details

An MS Excel file with a comparison will open. If records are interpreted as different they will be listed as separate entries; otherwise they will be shown as a single record marked as 'same'.

6.2 Invoices

The *Finance/Invoices* page is a toolkit for reviewing and sending invoices to clients as well as generating vendor associated invoices for verification purposes.

Invoice generation is fully automated. The System collects billing data from incoming EDRs into a dedicated data pool. The pool is continuously updated at the rate of EDR arrival. This data pool constitutes the backbone of all further analytical processes carried out by the System and forms the basis for billing procedures. When the current billing period (defined by the partner agreement) is over, the System has access to all the processed statistics necessary for generating a new invoice. At this point it only needs a few seconds to create the invoice file, which then can be reviewed by the user before sending.

6.2.1 How it works

By default all invoices, created automatically or manually (in the [Finance\Charges](#)^[138] page), have the *Draft* status and are never auto-sent to clients. Each invoice can be reviewed and edited if needed and is dispatched only after confirmation ( button on the tool bar at the bottom of the *Invoices* table). It is possible to configure automatic dispatch of invoices – by the parameter *Invoice auto-dispatch delay, hours* in [Administration\System settings\Financial module](#)^[45].

All invoices automatically generated by the System are created a few hours after the end of each billing period (the billing period is defined in [Carriers\Agreements](#)^[117]).

NOTE: The delay for invoice creation is configured by the parameter *Invoice generation delay, hours* in [Administration\System settings\Financial module](#)^[45].

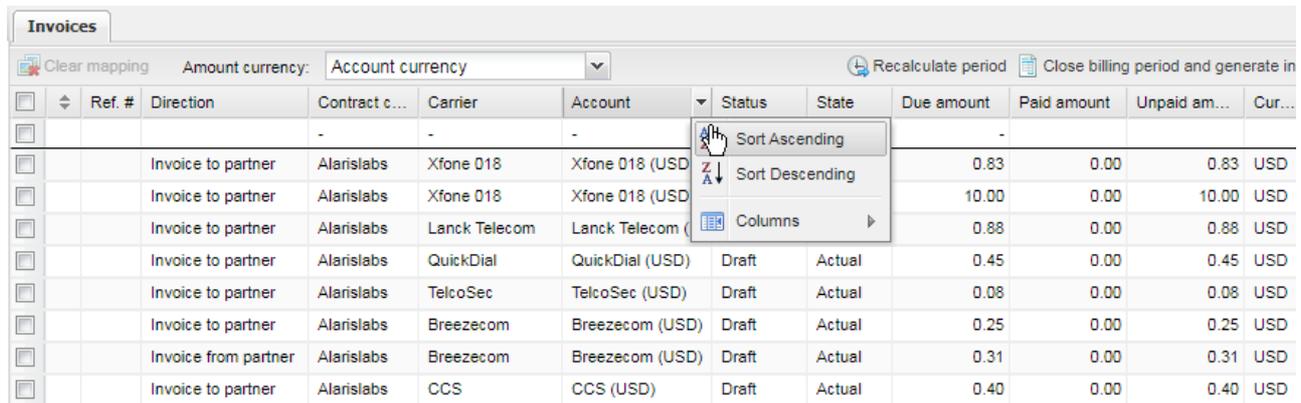
The billing period and delays are configured in the partner time zone (defined in [Carriers\Agreements](#)^[117]). To avoid confusion, it is recommended to use GMT both as the System owner and partner time zones.

Apart from invoices, a user can issue another type of financial document - a credit note. A credit note is a type of invoice that is used to correct the partner balance and can be instrumental in case of disputes. When amount correction in the client's favor is needed after the invoice has been received, a credit note can cover the required amount by increasing the client's balance. In a vendor-associated case, a credit note stands for the amount to be compensated to the System owner by reducing the vendor's balance. To issue a credit note, create a charge with a negative amount, and the credit note will be generated automatically (if the *Create/update invoices* checkbox is selected in the *Create charge detail* dialog of the [Finance\Charges](#)^[136] page).

Confirmed invoices are delivered to the preset email addresses. The default address is set in [Carriers\Agreements](#)^[117] (optional parameter *Default invoice emails*). Invoice copies can also be sent to other recipients defined in [Administration\System settings\Financial module](#)^[45] (parameter *Email address list to CC finance-related emails*) or to specified System users if the *Send invoices* flag is set [Administration\Users](#)^[97] (*Edit* tab).

An invoice comprises two separate files: a PDF file containing general invoice information (cover letter) and a MS Excel file with traffic details (the MS Excel file is password-protected against editing, the password is set in the parameter *Invoice detail Excel password (not used if empty)* set in [Administration\System settings\Common](#)^[35]. Find out more in the [Alaris YouTube video](#)). Both files can be sent out as attachments to a single email, or as two separate emails. The type of delivery is set in [Carriers\Agreements](#)^[117] (parameter *Invoice delivery options*). A convenient option is *link*: the client receives an email with a link to the invoice. The System owner will know exactly if the invoice has actually been received (opened) by the client. This is the only case when the invoice status is changed to *Delivered*. Some other general billing parameters associated with invoice generation, dispatch and payment balances are set in [Administration\System settings\Financial module](#)^[45] and [Carriers](#)^[99] sections.

6.2.2 Invoices table



Ref. #	Direction	Contract c...	Carrier	Account	Status	State	Due amount	Paid amount	Unpaid am...	Cur...
	Invoice to partner	Alarislabs	Xfone 018	Xfone 018 (USD)			0.83	0.00	0.83	USD
	Invoice to partner	Alarislabs	Xfone 018	Xfone 018 (USD)			10.00	0.00	10.00	USD
	Invoice to partner	Alarislabs	Lanck Telecom	Lanck Telecom			0.88	0.00	0.88	USD
	Invoice to partner	Alarislabs	QuickDial	QuickDial (USD)	Draft	Actual	0.45	0.00	0.45	USD
	Invoice to partner	Alarislabs	TelcoSec	TelcoSec (USD)	Draft	Actual	0.08	0.00	0.08	USD
	Invoice to partner	Alarislabs	Breezecom	Breezecom (USD)	Draft	Actual	0.25	0.00	0.25	USD
	Invoice from partner	Alarislabs	Breezecom	Breezecom (USD)	Draft	Actual	0.31	0.00	0.31	USD
	Invoice to partner	Alarislabs	CCS	CCS (USD)	Draft	Actual	0.40	0.00	0.40	USD

Invoices table

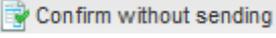
The *Invoices* table contains information on invoices registered in the System. Drop-down lists in the column headers allow ascending/descending sorting of the records. The *Columns* list allows hiding/unhiding columns.

The  **Clear mapping** button in the top left corner cancels the mapping of the selected invoices. It is available for invoices with the *Payment status: Partially paid* or *Paid in full*.

The *Amount currency* field at the top of the page allows selecting the currency in which the amounts in the table will be displayed (in the fields *Due amount*, *Presented amount* and *Tax amount*). If a value other than the account currency is selected, the fields are highlighted in green. The list contains currencies set

in the System parameters *Finance first currency*, *Finance second currency* and *Finance third currency* ([Administration\System settings\Financial module](#)^[45]).

The table contains information on the following parameters:

- *Ref. #*: actual invoice number, automatically assigned to an invoice after its draft is confirmed and the invoice is sent out or configured manually; the initial number can be set in [Administration\System settings\Financial module](#)^[45] (parameter *Current invoice number*). The number format can be set in [Reference books\Contract companies](#)^[164] (the parameters *Invoice reference number format (inbound)* and *Invoice reference number format (outbound)*)
- *Direction*: *Invoice to/from partner* (*to partner* means to the client; *from partner* - from the vendor); *Credit note to/from partner* (a credit note is an invoice with a negative amount that serves for balance correction in case of backdate changes of data)
- *Contract company*: the legal entity of the System owner on behalf of which it works with the carrier
- *Carrier*: client/vendor name, as per data in the [Carriers](#)^[99] section
- *Account*: account for which the invoice is generated
- *Status*:
 - *Draft* - status assigned to all generated non-confirmed invoices
 - *Sent* - status assigned to an invoice after its confirmation and dispatch ( button)
 - *Delivered* - status assigned to an inbound traffic invoice after it is received by the client, in case of link-assisted delivery
 - *Registered* - status assigned to a vendor invoice (*Direction: Invoice from partner*) after it is confirmed with the help of the  button
 - *Confirmed* - status assigned to an invoice after it is confirmed without sending to the client (the  button)
 - *Needs to be resent* - is assigned to sent invoices (with the statuses *Sent/Delivered*) if they are modified (for example, of the *Presented amount* is changed or new charges are added to the invoice)
 - *Pending* - an intermediate status assigned to invoices that are being sent
 - *Insignificant* - status assigned to an invoice with an estimated amount lower than defined in [Carriers\Agreements](#)^[111] (parameter *Min invoice amount*). Such invoices are not sent out for the current billing period, but are supplemented to the following period invoice, which in this case comprises two separate charges for two successive periods
 - *Disputed* - status assigned to an invoice challenged by the partner, provided that both of the following preset parameters are surpassed: *Min absolute mismatch to invoke a dispute* and *Min percent mismatch to invoke a dispute* defined in [Administration\System settings\Financial module](#)^[45]. The mismatch is the difference between the *Presented amount* and *Estimated amount* (for client invoices the *Presented amount* must be lower than the *Estimated amount*, and vice versa for vendor invoices). The *Disputed* status may be assigned to invoices with the status *Confirmed* or *Registered* (based on the invoice direction)

- *Dispatch failed* - status assigned to an invoice if the invoice could not be sent due to one of the following reasons (displayed when hovering over the status):
 - The template of the invoice cover letter or traffic detail file is incorrect or not available
 - The mail server is configured incorrectly or is unavailable
 - No emails for sending invoices are configured
 - Running or scheduled EDR recalculation tasks for the invoice period for the product whose traffic is included in the invoice
 - Internal System error
- *State:*
 - *Actual* - regular invoices generated according to currently valid billing data
 - *Outdated* - invoices are automatically marked as outdated if any relevant changes to underlying billing data are introduced into the System retrospectively, for example in case of EDR recalculation. Such outdated invoices are subject to recalculation
- *Due amount:* actual amount owed against the invoice. The displayed sum is equal either to *Estimated amount* (plus *Tax amount* if any) or *Presented amount*, depending on the *Amount source* value (see *Edit invoice* description below)
- *Paid amount:* a click on the value in this column opens the [Invoice mapping](#)^[146] page displaying correlation between issued invoices and made payments or counter invoices. The value in this column is displayed as a link only for registered invoices
- *Unpaid amount:* the outstanding amount in the invoice
- *Currency:* currency of the invoice
- *Payment status:* Payment expected, Paid in full, Partially paid, Not sent, Overdue
- *Estimated amount:* total amount due based on the System calculation. A click on the value opens charge details for each specific invoice. The same data constitutes a detailing XLS/XLSX file to be sent to a client, charge details can be exported to the XLS/XLSX format
- *Tax amount:* tax amount of the invoice. Depends on parameter *Tax scheme* in the [Carriers\Agreements](#)^[117] settings:
 - *Tax included:* the tax is already added to the invoice amount. In this case *Due amount* is equal to *Estimated amount*
 - *Add tax % to estimated amount:* tax is calculated according to the invoice amount. In this case $Due\ amount = Estimated\ amount + Tax\ amount$
- *Presented amount:* total amount due according to partner estimation, if available; the value is introduced manually as *Presented amount* in the *Edit invoice* tab. A difference between *Estimated* and *Presented amount*, if any and if unfavorable for the System user, changes the invoice status to *Disputed* provided it is greater than the value of either parameter - *Min absolute mismatch to invoke a dispute* or *Min percent mismatch to invoke a dispute*, whichever is stronger – see [Administration\System settings\Financial module](#)^[45]
- *Period from / Period to:* start/end date of the invoiced period
- *Issue date:* date of the invoice issue

- *Reg date*: date on which the invoice was confirmed
- *Invoice last updated*: date and time of the latest update of the invoice
- *File*: a click on the download link opens the PDF file of the invoice (only the cover letter; the traffic details file can be downloaded by clicking  on the toolbar at the bottom of the table)
- *Invoice last updated*: date and time of the latest update of the invoice

Invoice filter

Reference number:

Direction:

Contract company:

Account manager:

Currency:

Carrier:

Account:

Product type:

Invoice status:

State:

Due amount: from to

Payment status:

Billing period:

Period between: and

Issue date between: and

Last updated between: and

Invoice filter

The  button in the upper left corner of the *Invoices* page toggles the *Invoice filter* view.

Enter the appropriate parameters and click  to filter the records in the *Invoices* table.

6.2.3 Invoice mapping

Invoice mapping is allocation of payments and invoices to one another (for example, payments to counter payments, payments to invoices, invoices to counter invoices etc.) It can be done automatically or manually. Automatic mapping is configured on the [Finance/Payments](#) page (the *Make auto mapping* checkbox in the *Edit payment* form).

NOTE: When automapping is enabled, the System allocates the received payments to cover the oldest invoices first. For manual mapping, click on the link in the *Paid amount* column to open the *Invoice mapping* page.

Invoices			
0000001: invoice mapping			
Document	Covered amount	Manual/Auto	
Invoice from partner 2015.02.01-2015.02.28 405.58 U...	200	manual	

Invoice mapping page

The  **Map document** button on the tool bar at the bottom of the *Invoice mapping* page allows adding unmapped documents to the profile by specifying the document and choosing between listed amount options. Fields marked with an asterisk (*) are required.

Map document ✕

Non-mapped document*:

Invoice to partner 2015.01.01-2015.01.31 390.48/390.48 USD ▼

Drop down list will show the document ref #, document amount, document dates and the amount left to be mapped after previous mapping operations

Map full invoice amount 3278.24 USD
 Map full document amount 390.48 USD
 Specify amount to map USD

✕ Cancel
+ Add

Map document

- *Non-mapped document*: drop-down list of available invoices. The list is formed automatically and displays the amount available for distribution for every charge or invoice (in case unallocated financial documents from a partner are registered in the System)
- *Map full invoice amount*: is active only if the invoice is totally covered by selected payment or by counter invoice
- *Map full document amount*: if the payment amount is less than the amount of the invoice, the payment can be used to partially cover the invoice
- *Specify amount to map*: manually specify the payment amount or counter invoice to cover the selected invoice

Click  **Add** to apply the settings.

6.2.4 Editing invoices

Double-click on any value in the *Invoices* table (except the links) to open the *Edit invoice* window. The same window can be opened by the  **Edit invoice** button on the tool bar at the bottom of the table.

Edit invoice X

Invoice from partner General C.O.W. Services C.O.

Reference number:

Direction: **Invoice from partner**

Carrier: **Clara Sill**

Status, State: **Draft, Actual**

Due amount: **93 058.93 USD**

Amount source: ▼

Paid amount: **0.00**

Payment status: **Not sent**

Estimated amount: **93 058.93**

Tax amount: **0.00**

Presented amount:

Disputed amount: **0.00**

Dispute status override*: ▼

Begin date: 2019.12.09 00:00:00 (System time: 2019.12.09 00:00:00)

End date: 2019.12.15 23:59:59 (System time: 2019.12.15 23:59:59)

Issue date*:

Registration date:

Due date:

Notes:

Attachment:

[Clara Sill 2019.12.15.pdf](#)

Make auto mapping

Invoice last updated: 2019.12.16 04:26:38

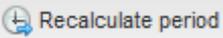
Edit invoice window

The window contains the following parameters:

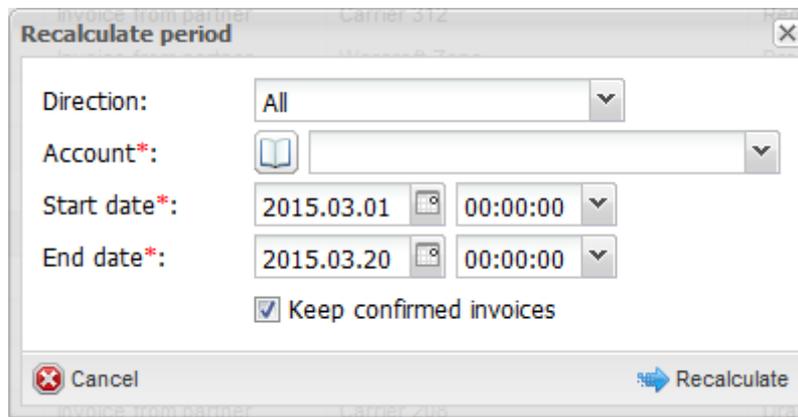
- *Reference number*
- *Amount source*: select *Amount presented by partner* or *System owner estimated amount + tax* to choose which amount is considered correct - *Estimated* (calculated by the System) or *Presented* (provided by the partner)
- *Disputed amount*: difference between Due amount and Presented amount. If *Amount source* is set as *Amount presented by partner*, then *Due amount* becomes equal to *Presented amount*, and the *Disputed amount* is null

- *Dispute status override*: the drop-down list allows changing the invoice status overriding the current one. Possible values include:
 - *Default*: leave the current logic for setting the *Disputed* status unchanged
 - *Disputed*: override the statuses *Sent*, *Confirmed*, *Delivered*, or *Registered* with *Disputed*
 - *Non disputed*: leave the status non-disputed even if it should be set as disputed
- *Begin date / End date*: invoiced period
- *Due date*: payment due date
- *Notes*: arbitrary comments
- *Make auto mapping*: enables automatic synchronization of a registered payment with the relevant carrier/account invoicing and payment profile. When the checkbox is selected, the System allocates the payments to cover the oldest invoices prior to recent ones

Enter the appropriate parameters and click  to apply the settings. Click the  button to confirm the invoice draft. The invoice status will change from *Draft* to *Registered*.

The  button in the upper right corner of the *Invoices* page opens the *Recalculate period* window, which allows recalculation of all invoices for the specified period, for example in case of billing period readjustments, outdated invoices etc.

NOTE: Recalculation of invoices must be done after EDR rerating to bring the invoicing information up to date. Refer to [SMS\EDR Management\EDR Rerating](#) ^[232] for more detail.

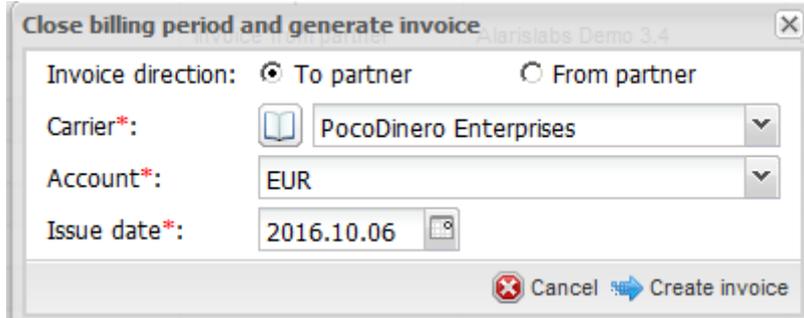


Recalculate period

Enter the appropriate parameters in the window and click  to recalculate the selected invoice:

- *Direction*: traffic direction (*Client*, *Vendor* or *All*)
- *Account*: select the account from the drop-down list. The  button opens the list of accounts that can be filtered by account name or carrier region
- *Start date*: first date of the revised period
- *End date*: last date of the revised period

- *Keep confirmed invoices*: deselect the checkbox to re-create confirmed invoices (all invoices will be deleted and created again with the *Draft* status)



Close billing period and generate invoice

The button  **Close billing period and generate invoice** in the upper right corner of the *Invoices* page serves to generate an invoice for a billing period that is still open. The invoice will be generated on the date specified in the *Issue date* parameter. The last day of the billing period that is closed will be the day before the one set in the *Issue date* field. For example, if *Issue date* is 08.09.2019, then *Period to* will be 07.08.2019 inclusively. The next auto-generated invoice will cover the remaining days of the preset billing period, its end date becoming the last day of the period.

NOTE: Do not use this button to generate invoices for a completed billing period, when such invoices have not yet been created automatically (this normally happens when rates are imported retrospectively).

Enter the appropriate parameters in the window:

- *Invoice direction*: to/from partner
- *Carrier*: select the carrier from the drop-down list. The  button opens the list of carriers that can be filtered by ID, region or carrier name
- *Account*: select the account from the drop-down list
- *Issue date*: date of the invoice generation

Click  **Create invoice** to generate the invoice. The invoice will appear in the table with the *Draft* status.



Bottom toolbar

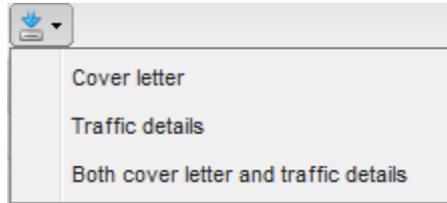
Click  **Confirm** on the bottom tool bar and then select  **Confirm and send** if you wish to confirm the selected invoice draft and send it to the partner (the invoice will be automatically sent to the e-mail defined in the [Carriers\Agreements](#) settings). Click  **Confirm** and select  **Confirm without sending** to confirm the invoice without sending (for example, in case of backdate corrections).

The button  **Set amount to zero** sets the *Amount source* field of the selected invoice to *Amount presented by partner*, and the *Presented amount* field to 0. It comes instrumental when the user wishes not to charge a specific invoice for some reason (for example, the amount is too small or was already charged elsewhere). The button is available only if the user has the permissions *Confirm vendor invoice* and/or *Confirm client invoice*.

Click  **Resend** to resend the invoice to the partner.

Click  **Recalculate** to recalculate the selected invoice draft (for example, when a partner performed backdate changes in the billing data).

The button  opens the invoice download menu that allows downloading the cover letter, traffic details or both.



Invoice download details

The download queue is displayed in the *Invoice files downloading list* that can also be opened by the  button in the bottom right corner of the page.

Invoice files downloading list					
Task ID	Document types	Task created	Task status	Details	
		$-\infty \leq X \leq \infty$	All		
TASK284010	Cover letter	2019.07.04 14:10:01	ready	download	
TASK281246	Cover letter, Traffic details	2019.06.25 08:43:17	ready	download	
TASK279832	Cover letter, Traffic details	2019.06.20 16:27:38	ready	download	
TASK275094	Cover letter, Traffic details	2019.06.06 02:20:38	ready	download	

Invoice files downloading list

Click  to export the *Invoices* table to a MS Excel file.

6.3 Payments

The *Finance\Payments* page serves to track incoming and outgoing payments. The Invoice/payment mapping feature allows automatic matching of registered payments against issued invoices. Payments are entered (registered) to the System manually.

6.3.1 Payments table

The *Payments* table displays information about all payments registered in the System.

Payments						
Ref. #	Contract company	Bank account	Carrier	Account	Payment date	
201910280855#12367	AK Best Company	-	1-To-Allzz	1-To-Allzz (RUB) test!	2019.10.28.00:00:00	
201910281008#12371	AK Best Company	-	1-To-Allzz	1-To-Allzz (RUB) test!	2019.10.28.00:00:00	
201910281008#12370	AK Best Company	-	1-To-Allzz	1-To-Allzz (RUB) test!	2019.10.28.00:00:00	
201910280719#12361	AK Best Company	-	1-To-Allzz	1-To-Allzz (EUR)	2019.10.28.00:00:00	
201910280737#12363	AK Best Company	-	1-To-Allzz	1-To-Allzz (EUR)	2019.10.28.00:00:00	
201910280738#12364	AK Best Company	-	1-To-Allzz	1-To-Allzz (EUR)	2019.10.28.00:00:00	
201910280856#12368	AK Best Company	-	1-To-Allzz	1-To-Allzz (RUB) test!	2019.10.28.00:00:00	

Payments table

Click on the column headers for ascending/descending sorting of the records. Use the *Columns* list to hide/unhide columns. The table contains information on the following parameters:

- *Ref. #:* internal System reference number of the payment record
- *Contract company*
- *Bank account:* the System owner's bank account number as configured in [Reference books\Bank accounts](#) ^[160]
- *Carrier:* client/vendor name, as per data in the [Carriers](#) ^[99] section
- *Account:* the partner account name and currency
- *Payment date:* the actual payment date
- *Expiry date:* for payments in the *Draft* status. Upon registration of payments (including those in the *Draft* status) the balance is immediately updated. In case when a payment is not registered before the *Expiry date*, it becomes ignored. In other words, a *Draft* is considered a regular payment only until the *Expiry date*.

NOTE: This can happen when a partner informed the System owner that a payment has been made, but the actual money has not arrived yet. The partner can be notified in advance about the expiry of a draft payment. The notifications are set in the parameter *Send notifications of deferred payments coming due to client*; the period is set in *Notification period of deferred payments coming due, days* ([Administration\System settings\Financial module](#) ^[45]). The email addresses are set in [Carriers\Agreements](#) ^[117] (*Default invoice emails* field).

- *Registration date:* date of the payment registration in the System
- *Direction:* *Inbound* or *Outbound*
- *Bank statement amount:* payment amount against the bank statement (the amount actually paid by the partner, before bank charges)
- *Amount debited:* the sum posted to the account (balance) after bank charges
- *Bank fee:* bank activity charges, calculated as difference in absolute value between *Bank statement* and *Amount debited*
- *Covered amount:* underlying invoice amount covered by the payment; may be partial or full. A click on the value opens payment mapping profile displaying correlation between payments made and invoices issued (see [Finance\Payments\Payment mapping](#) ^[153])
- *Status: (Draft, Confirmed):* a payment record may be saved in the System as a draft, for example if the actual payment from the client has not been received but the customer claims it has already been executed – such record acquires the *Confirmed* status only after additional confirmation and submission to the System. *Draft* payments have temporary impact on partner balance (until the *Expiry date*). *Confirmed* payments have a permanent impact on the partner balance while the payment remains in the System (that is, until it is deleted)
- *Document:* underlying document
- *Comment:* arbitrary comments

The **»»** button in the upper left corner of the *Payments* page toggles the *Payments filter* view.

Payments filter

Reference number:

Direction:

Contract company:

Bank account:

Carrier:

Date between: and

Status:

Currency:

Payments filter

Enter the appropriate parameters and click  **Apply filter** to filter the records in the *Payments* table. The  button in the *Carrier* field opens the list of carriers that can be filtered by ID, region or carrier name.

6.3.2 Payment mapping

A click on the *Covered amount* column values opens the payment mapping page displaying correlation between payments made and invoices issued. The page is similar to the [Finance\Invoices\Invoice mapping](#) page detailed above. Mapping can be done on either page.

Document	Covered amount	Manual/Auto
Invoice from partner 2015.02.01-2015.02.28 405.58 USD	100	manual 

Payment mapping page

The  **Map document** button at the bottom of the *Payment mapping* page allows adding unmapped documents to the profile by specifying the document and choosing between listed amount options:

Map document

Non-mapped document*:

Drop down list will show the document ref #, document amount, document dates and the amount left to be mapped after previous mapping operations

Map full invoice amount USD
 Map full document amount USD
 Specify amount to map USD

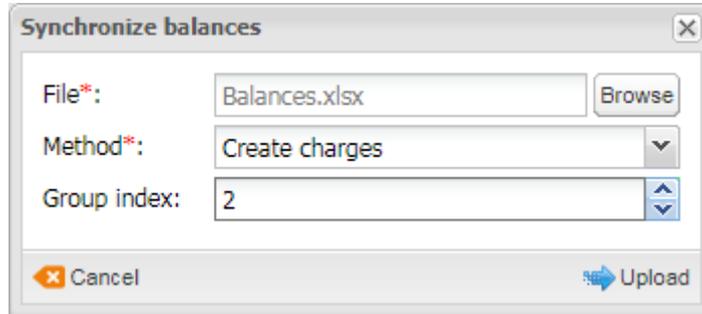
 Cancel  Add

Payment mapping

6.3.3 Interface controls

The *Finance\Payments* page has the following controls.

The  **Synchronize balances** button opens the same-name dialog:



The dialog box titled "Synchronize balances" contains the following fields and controls:

- File*:** A text input field containing "Balances.xlsx" and a "Browse" button.
- Method*:** A dropdown menu with "Create charges" selected.
- Group index:** A dropdown menu with "2" selected.
- Buttons: "Cancel" (with a close icon) and "Upload" (with a blue arrow icon).

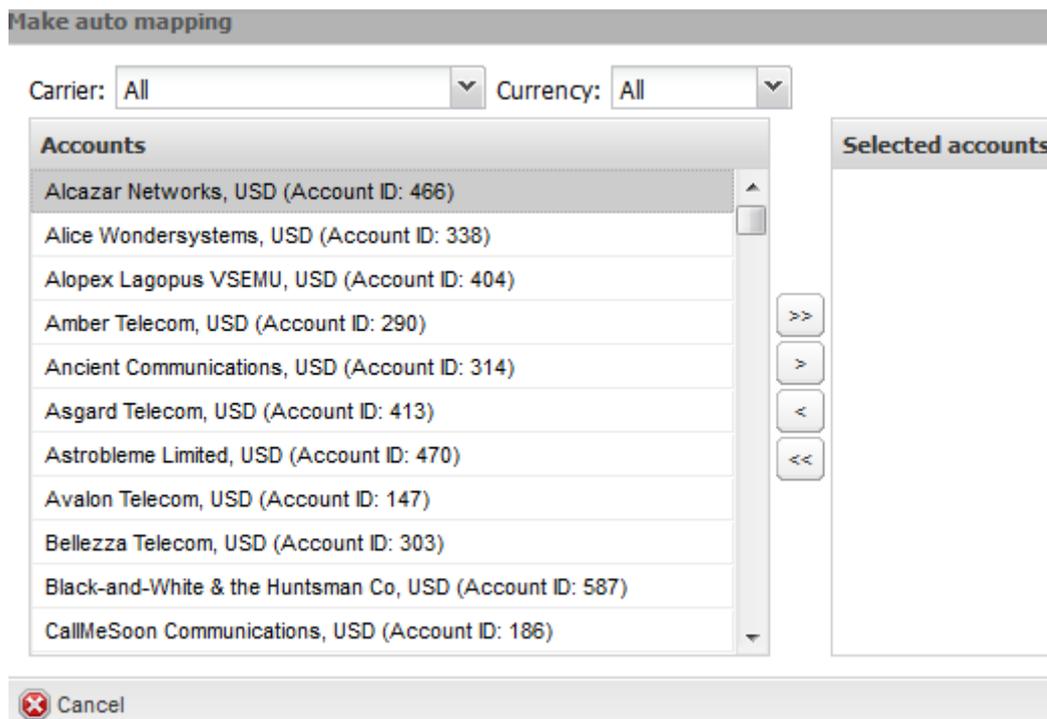
Synchronize balances

The dialog enables synchronization with external accounting systems through uploading data. It contains the following parameters:

- *File*: select a CSV file separated with semicolon (;) with the following fields:
 - Carrier name: string of 256 characters maximum (must coincide with the carrier name in the System)
 - Currency: string of 256 characters maximum, e.g. USD, EUR
 - Balance value: balance amount; decimal separator dot (.) can be used
 - Balance effective date: submitted in the format DD MM YYYY HH24 MI SS
- *Method*: select the document that must be created to synchronize balances. Possible values are:
 - *Create charges*
 - *Create payments*
- *Group index*: select a group index (available only if *Create charges* is selected in the *Method* field)

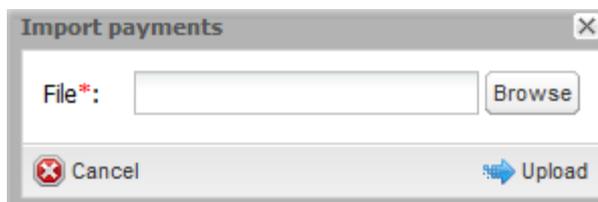
Learn more about the feature in [Alaris YouTube video](#).

The  **Make auto mapping** button launches automatic allocation of payments to invoices for selected accounts:



Make auto mapping

The  **Import payments** button opens the same-name window:

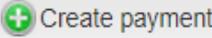


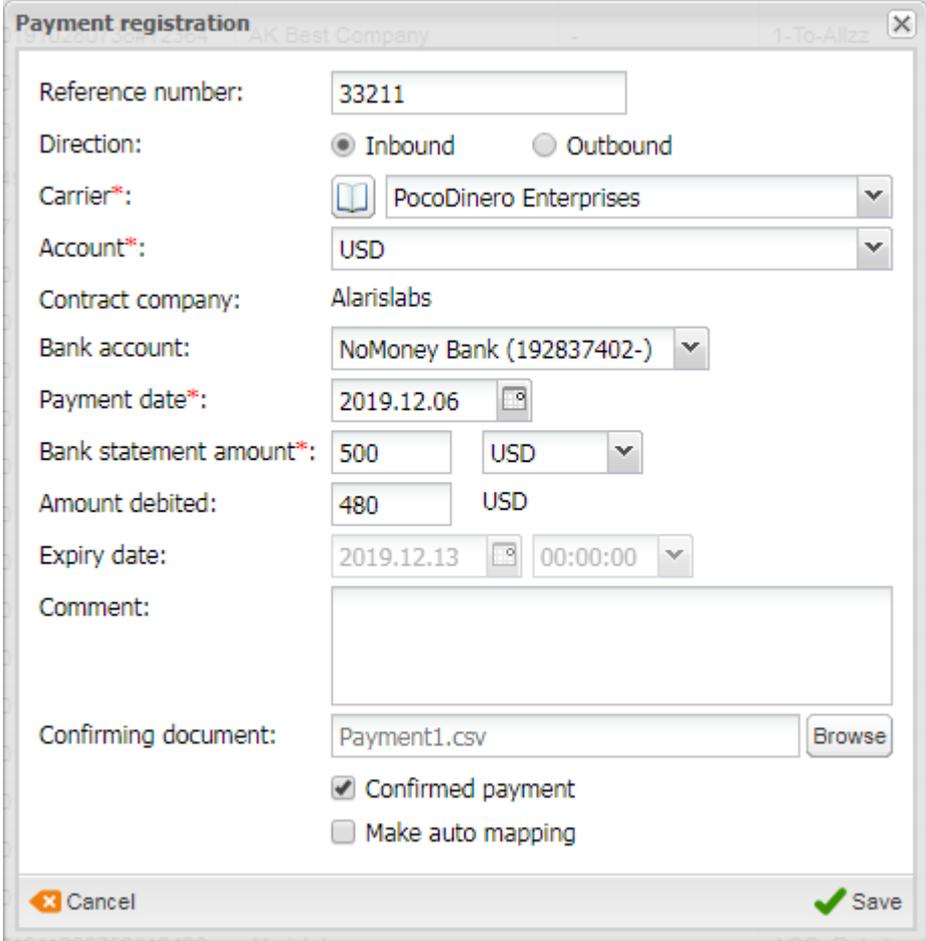
Import payments

The window allows import of external payment records; it requires CSV-format files separated with semicolon (;) with the following fields:

- *Carrier name*: string of 256 characters maximum (must fully coincide with the carrier's name in the System)
- *Payment direction*: '0' or 'inbound' for payments from client; '1' or 'outbound' for payments to vendor
- *Payment date*: submitted in format DD MM YYYY HH24 MI SS
- *Payment reference number*: string of 256 characters maximum
- *Payment amount*: payment amount, decimal separator "." (dot) can be used
- *Payment currency*: currency code, e.g. USD or EUR
- *Payment comments*: string of 4000 characters maximum
- *Account ID*: the Account ID from the [Carriers\Accounts](#) ¹⁰⁹⁷ table (the field is required for partners having more than one account in the same currency)

- *Agreement code*: The System will use the column to define the appropriate account if the fields *Carrier name* or *Account ID* are empty

The  button opens the *Payment registration* window:



The screenshot shows a 'Payment registration' dialog box with the following fields and values:

- Reference number: 33211
- Direction: Inbound Outbound
- Carrier*: PocoDinero Enterprises
- Account*: USD
- Contract company: Alarislabs
- Bank account: NoMoney Bank (192837402-)
- Payment date*: 2019.12.06
- Bank statement amount*: 500 USD
- Amount debited: 480 USD
- Expiry date: 2019.12.13 00:00:00
- Comment: (empty text area)
- Confirming document: Payment1.csv (with a 'Browse' button)
- Confirmed payment
- Make auto mapping

Buttons at the bottom: Cancel (with a close icon) and Save (with a green checkmark icon).

Payment registration

The window allows manual creation of payment records by configuring the following parameters:

- *Reference number*: payment ID from the payment service provider
- *Payment direction*: *Inbound* (from partner) or *Outbound* (to partner)
- *Carrier*: relevant client/vendor, as per data in the [Carriers](#)^[99] section. The  button opens the list of carriers that can be filtered by ID, region or carrier name
- *Account*: relevant account, as per data in [Carriers\Accounts](#)^[109]
- *Contract company*
- *Bank account*: the bank account number from [Reference books\Bank accounts](#)^[160]
- *Payment date*: date of actual payment execution
- *Bank statement amount*: payment amount against the bank statement (the amount actually paid by the partner, before bank charges). Select currency in the drop-down list next to the field
- *Amount debited*: the sum posted to the account (balance) after bank charges

- *Expiry date*: the expiration date of payments with the *Draft* status. If the payment status is not changed to *Registered* by the date (that is, the actual payment is not received and acknowledged), the amount will be written off the partner's balance.

NOTE: This field only makes sense when the *Registered* checkbox is deselected.

- *Comment*: arbitrary comments to payment
- *Confirming document*: underlying document
- *Registered payment*: if the checkbox is selected, the payment gets registered immediately. The selected checkbox shows that this payment is not a *Draft* and has no *Expiry date*
- *Make auto mapping*: enables automatic synchronization of a registered payment with the relevant carrier/account invoicing and payment profile. When the checkbox is selected, the System allocates the payments to cover the oldest invoices prior to recent ones

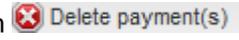
NOTE: The currency exchange rate is taken as of the payment date.

When through with defining the parameters, click  **Save** to confirm or  **Cancel** to discard the settings.

The  **Clone payment** button creates a duplicate of the configured payment. This is helpful when configuring another payment with similar parameters.

Click  to refresh the page.

The button  **Confirm draft and submit payment(s)** allows payment confirmation and registration in the System.

The button  **Delete payment(s)** deletes the selected payment record.

NOTE: The balance will change by the payment amount (unless the deleted payment is an expired draft payment).

Any payment record can be exported either to an CSV or XLS-file using the buttons  and  respectively.

6.4 Recurring fees

The *Finance\Recurring fees* page serves to configure regular charges to partners for continuous services - not only traffic exchange, but also, for example, server or data channel rental. The page contains a table of recurring fees and the *Add* and *Edit* tabs.

 Details	Next start date	Next end date	Confirm...	Direction
 Text mask				
Recurrent fee	2016.11.01 00:00:00	2016.11.07 00:00:00	No	Client

Recurring fees table

NOTE: For easier handling of recurring payments it is recommended to create a dedicated product type. Go to [Reference books\Product types](#) ^[173], create a new product type (for example, *Server rental*), and in the *Unit* field select *Service*.

+ Add ✎ Edit	
Details*:	Traffic exchange deal
	<input checked="" type="checkbox"/> Confirm invoice
Direction*:	Client
Product type*:	SMS
Invoice group index*:	<input type="text"/> <input checked="" type="checkbox"/> Autovalue
Rate*:	0.1
Volume*:	1
Account*:	PocoDinero Enterprises, USD
Start date*:	2017.12.24 00:00:00
End date*:	2018.01.24 00:00:00
Create charge at:	end of the period
Product:	
Volume threshold:	1000
Comments:	If the actual traffic volume is less than 1000 SMS for the billing period, the partner will still be charged

Add tab

The Add tab of the *Recurring fees* page contains the following parameters.

- *Details*: payment description
- *Confirm invoice*: when the checkbox is selected, invoices are confirmed automatically
- *Direction*: Vendor or Client
- *Product type*: select a product type specifically created for this service
- *Invoice group index*: specify a unique value if you want this charge to be invoiced separately (decimal values are supported). To invoice this charge together with another product, select the index of that product. If *Autovalue* is checked, the grouping is performed as set in the parameter *Default charge grouping mode* (for possible values refer to [Administration\System settings\Financial^{\[45\]} module^{\[157\]}](#))
- *Rate*: service price

NOTE: In the *Recurring fees* table the rate will be displayed with the rounding precision as set in the parameter *Rate rounding precision (displaying)* in [Administration\System settings\SMS rates^{\[66\]}](#).

- *Volume*: volume of the services (in units configured in [Reference books\Product types^{\[173\]}](#))
- *Account*: partner account

- *Start date, End date*: billing period. For example, if the billing period is 1 month, the service will be charged for monthly. The next billing period is shown in the *Recurring fees* table in the *Next start date* and *Next end date* columns
- *Create charge at*: end of the period or beginning of the period
- *Product, Volume threshold*: the fields allow charging a partner an extra fee when a certain amount of traffic is not reached. Suppose you agreed that a partner will send at least 1000 SMS every billing period. In case it sends less it will have to pay an extra amount. If the conditions are met, the client only pays for the traffic at a regular rate. In the *Product* field select the appropriate product and in the *Volume threshold* field specify the minimum amount of traffic that must be sent by the client. Learn more about the feature in [Alaris YouTube video](#).
- *Comments*

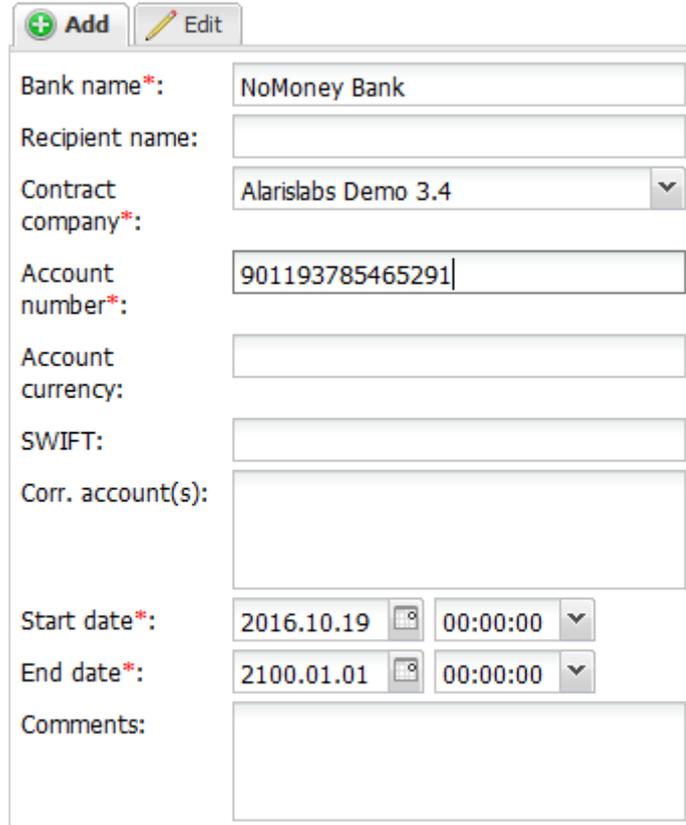
Click  to save the changes.

7 Reference books

7.1 Bank accounts

The *Reference Books\Bank accounts* page contains information about the System owner's bank accounts that are used to create agreements with partners (see [Carriers\Agreements](#)^[117]) and payments (see [Finance\Payments](#)^[157]).

To create a new bank account record, use the *Add* tab as illustrated below.



+ Add		Edit	
Bank name*:	NoMoney Bank		
Recipient name:			
Contract company*:	Alarislabs Demo 3.4		
Account number*:	901193785465291		
Account currency:			
SWIFT:			
Corr. account(s):			
Start date*:	2016.10.19	00:00:00	▼
End date*:	2100.01.01	00:00:00	▼
Comments:			

Add tab

7.2 Tags

Tags are marks assigned to source/destination-numbers or their masks. Source number tags serve to configure routing by A-number; destination number tags can be used in creating routing rules and black lists. Using both numbers in routing rules, it is possible to filter traffic by a specific source and destination number combination. Find out more in the [Alaris YouTube video](#).

The *Reference Books\Tags* page contains a table of tags and the *Add* and *Edit* tabs.

ID	Tag type	Direction	Tag name	Tag Values	Description	Start date	End date
49282	SMS	Source number	YouTube	79066589800		2017.12.01 00:00:00	2100.01.01 00:00:00
49281	SMS	Source number	YouTube	79066589802		2017.12.01 00:00:00	2100.01.01 00:00:00
49280	SMS	Source number	YouTube	790665898073		2017.12.01 00:00:00	2100.01.01 00:00:00
49279	SMS	Source number	YouTube	79066589812		2017.12.01 00:00:00	2100.01.01 00:00:00
49278	SMS	Source number	YouTube	79066589873		2017.12.01 00:00:00	2100.01.01 00:00:00
49277	SMS	Source number	YouTube	79066589825		2017.12.01 00:00:00	2100.01.01 00:00:00
49276	SMS	Source number	YouTube	79066589848		2017.12.01 00:00:00	2100.01.01 00:00:00
49275	SMS	Source number	YouTube	79066589887		2017.12.01 00:00:00	2100.01.01 00:00:00

Tags table

To create a new tag, use the *Add* tab as illustrated below.

Add
 Edit

Tag type*:

Direction*:

Tag name*:

Tag Values:

Description:

Start date*:

End date*:

Add tab

The tab contains the following parameters:

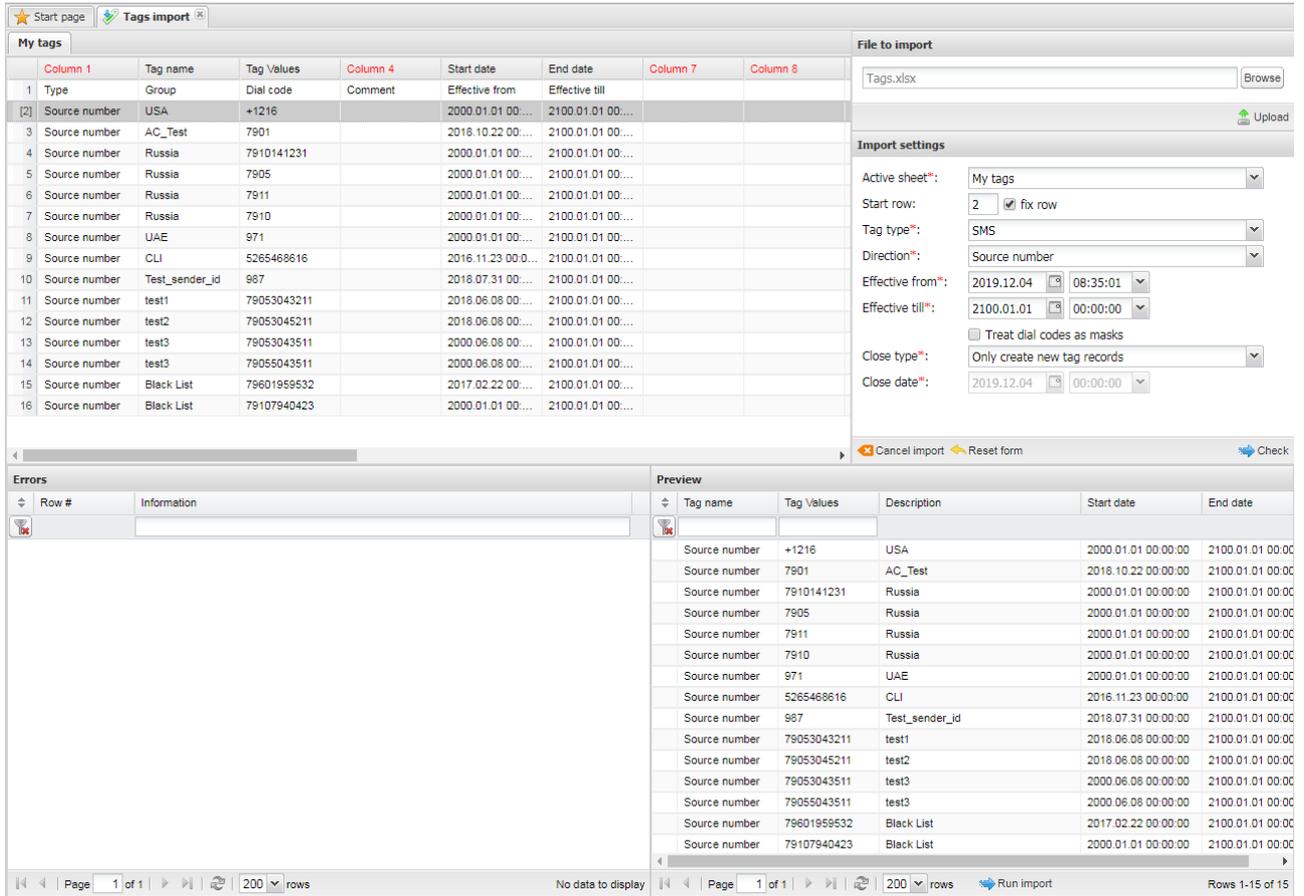
- *Tag type*: the tag type
- *Direction*: *Source number* (for A-numbers) or *Destination number* (for B-numbers)
- *Tag name*: the tag name. To create a new tag name, expand the drop-down list, type the name in the edit field and click the button.
- *Tag values*: the dial code (use % as a wildcard if necessary)
- *Description*: arbitrary comments
- *Start date, End date*: record validity date

Click **Submit** to save the changes.

7.3 Tag import

The *Reference books\Tag import* section serves to import A-number and B-number tags to the System.

The page consists of the following panels: the *File to import* and *Import settings* panels at the top right; the file preview at the top left of the page; the *Errors* panel at the bottom left of the page that displays import errors and the *Preview* panel at the bottom right of the page that shows the records to be imported.



The screenshot displays the 'Tags import' interface. At the top left, there is a 'My tags' table with columns: Column 1, Tag name, Tag Values, Column 4, Start date, End date, Column 7, and Column 8. The table contains 16 rows of tag data. To the right, the 'File to import' section shows 'Tags.xlsx' selected. Below it, the 'Import settings' panel includes fields for 'Active sheet*', 'Start row*', 'Tag type*', 'Direction*', 'Effective from*', 'Effective till*', 'Close type*', and 'Close date*'. At the bottom, there are 'Errors' and 'Preview' panels. The 'Preview' panel shows a detailed view of the tag data, including 'Tag name', 'Tag Values', 'Description', 'Start date', and 'End date'. The interface also includes navigation controls like 'Cancel import', 'Reset form', and 'Check'.

Column 1	Tag name	Tag Values	Column 4	Start date	End date	Column 7	Column 8
1	Type	Group	Dial code	Comment	Effective from	Effective till	
[2]	Source number	USA	+1216		2000.01.01 00:00:00	2100.01.01 00:00:00	
3	Source number	AC_Test	7901		2018.10.22 00:00:00	2100.01.01 00:00:00	
4	Source number	Russia	7910141231		2000.01.01 00:00:00	2100.01.01 00:00:00	
5	Source number	Russia	7905		2000.01.01 00:00:00	2100.01.01 00:00:00	
6	Source number	Russia	7911		2000.01.01 00:00:00	2100.01.01 00:00:00	
7	Source number	Russia	7910		2000.01.01 00:00:00	2100.01.01 00:00:00	
8	Source number	UAE	971		2000.01.01 00:00:00	2100.01.01 00:00:00	
9	Source number	CLI	5265468616		2016.11.23 00:00:00	2100.01.01 00:00:00	
10	Source number	Test_sender_id	987		2018.07.31 00:00:00	2100.01.01 00:00:00	
11	Source number	test1	79053043211		2018.06.08 00:00:00	2100.01.01 00:00:00	
12	Source number	test2	79053045211		2018.06.08 00:00:00	2100.01.01 00:00:00	
13	Source number	test3	79053043511		2000.06.08 00:00:00	2100.01.01 00:00:00	
14	Source number	test3	79055043511		2000.06.08 00:00:00	2100.01.01 00:00:00	
15	Source number	Black List	79601959532		2017.02.22 00:00:00	2100.01.01 00:00:00	
16	Source number	Black List	79107940423		2000.01.01 00:00:00	2100.01.01 00:00:00	

Tag import

To import a file with tags, proceed as follows:

- In the *File to import* section at the top right corner of the page select the file with tags that need to be imported. The file must contain the following columns:
 - Tag name*
 - Tag values*
 - Start date, End date*: validity period of the tag (optional)
 - Description* (optional)

NOTE: Possible delimiters between items in the file are: comma, space, line breaks and linefeed. Excessive spaces are ignored by the System. Learn more about this in [Alaris YouTube video](#).

- Click  **Upload**. The file preview will appear in the top left panel the way it looks in MS Excel. Everything is shown "as is" – all cell contents and the overall file structure (sequence and naming of

columns and worksheets) is preserved at this stage. To prepare the file for parsing, define the column types by clicking on the headers of the table. The mandatory columns are *Tag name* and *Tag values*.

My tags						
	Column 1	Tag name	Column 3	Column 4	Start date	End date
1	Type	Group	Dia	ment	Effective from	Effective till
[2]	Source number	USA	+12		2000.01.01 00:...	2100.01.01 00:...
3	Source number	AC_Test	790		2018.10.22 00:...	2100.01.01 00:...
4	Source number	Russia	791		2000.01.01 00:...	2100.01.01 00:...
5	Source number	Russia	790		2000.01.01 00:...	2100.01.01 00:...
6	Source number	Russia	791		2000.01.01 00:...	2100.01.01 00:...

Source file preview

3. Configure the parameters at the *Import settings* panel:

- *Active sheet*: select the spreadsheet that will be parsed (in case the original MS Excel file contains several spreadsheets)
- *Start row*: define the first row with the tag data, so that the System ignores everything that is above the table in the file. Check *fix row* to prevent the *Start row* value from changing when you navigate between rows in the preview
- *Tag type*: select *Voice* for Alaris inVoice or *SMS* for Alaris SMS Platform
- *Direction*: *Source number* (for A-numbers) or *Destination number* (for B-numbers)
- *Effective from/Effective till*: specify the validity period for the tags
- *Treat dial codes as masks*: when selected, the % symbol will be added to the dial codes from the file, and the System will treat them as masks. Suppose the dial code is 7910. With the option disabled, only numbers 7910 will be selected by the System. With the option enabled, the number will be treated as 7910% and all numbers having 7910 in them will be selected
- *Close type*: select how existing records must be treated if they contain the same tags as in the imported file:
 - *Only create new tag records*: add new tag records and leave all existing records as is
 - *Close all existing records*: close all existing records for the tags present in the file, and add new tag records
- *Close date* (active if *Close all existing records* is selected): the close date of existing records

Click  **Check** to view the parsing results and errors. To clear the *Import settings* panel click  **Reset**.

To clear all panels, click  **Cancel import**.

Errors	
Row #	Information
101	Cannot add the record: it overlaps existing references for the same code 244, tag GP04 and type...
102	Cannot add the record: it overlaps existing references for the same code 994, tag GP04 and type...
103	Cannot add the record: it overlaps existing references for the same code 975, tag GP04 and type...
104	Cannot add the record: it overlaps existing references for the same code 856, tag GRPC and typ...
105	Cannot add the record: it overlaps existing references for the same code 87077, tag GRPD and t...
106	Cannot add the record: it overlaps existing references for the same code 882, tag GP04 and type...
107	Cannot add the record: it overlaps existing references for the same code 678, tag GP04 and type...
108	Cannot add the record: it overlaps existing references for the same code 1264, tag GP04 and typ...

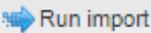
Errors panel

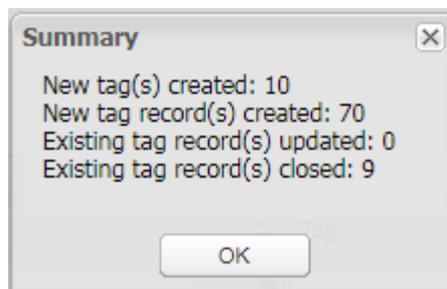
The *Errors* panel displays the list of parsing errors.

Preview				
Tag name	Tag Values	Description	Start date	End date
Source number	+1216	USA	2000.01.01 00:00:00	2100.01.01 00:00:00
Source number	7901	AC_Test	2018.10.22 00:00:00	2100.01.01 00:00:00
Source number	7910141231	Russia	2000.01.01 00:00:00	2100.01.01 00:00:00
Source number	7905	Russia	2000.01.01 00:00:00	2100.01.01 00:00:00
Source number	7911	Russia	2000.01.01 00:00:00	2100.01.01 00:00:00

Preview panel

The *Preview* panel shows the records that will be imported.

5. Review the errors and preview records and click . Once the operation is complete, import summary will appear on the screen as shown below.



Import summary

7.4 Contract companies

The *Reference Books\Contract companies* page serves to configure the legal entities of the System owner, on behalf of which it works with its partners. A contract company encompasses a set of templates and properties used for doing business with a partner.

The page contains the *Contract companies*, *Agreement defaults* and *Payment systems* tab sheets. Each tab sheet has the *Add* and *Edit* tabs in the right section of the page.

7.4.1 Contract companies tab

Contract companies		Agreement defaults	Payment systems
ID	Contract company	Wholesale portal URL	List of allowed domains (comma-separated)
285	123123123555		*.alarislabs.com
347	ACQ Ltd	https://portal.test34-fr.alarislabs.com/	*.alarislabs.com, *.alarislabs.ru
328	AC_CL_0103		*.alarislabs.com

Table of contract companies

To create a new contract company, open the *Contract companies* tab sheet and use the *Add* tab as illustrated below.

Add
 Edit

Contract company*:	<input type="text" value="Hornes and Hooves, Inc."/>
Alaris InVoice title:	<input type="text" value="Hornes and Hooves"/>
Invoice filename pattern:	<input type="text" value="[InvoiceDate]-[CompanyName].pdf"/>
Invoice details filename pattern:	<input type="text" value="[CompanyName]-[InvoiceDate]_[ProductDescr]"/>
Invoice reference number format (inbound):	<input type="text" value="[XXXXXXXX]"/>
Invoice reference number format (outbound):	<input type="text" value="[CAR_ID]"/>
Current invoice number (inbound):	<input type="text" value="6 267"/>
Current invoice number (outbound):	<input type="text" value="6 200"/>
Credit-note reference number format (inbound):	<input type="text" value="CN[XXXXXXXX]"/>
Credit-note reference number format (outbound):	<input type="text" value="CN[CAR_ID]"/>
Current credit-note number (inbound):	<input type="text" value="1"/>
Current credit-note number (outbound):	<input type="text" value="1"/>
Email address list to CC finance-related emails:	<input type="text" value="invoice@hoho.com"/>
Email address list to BCC finance-related emails:	<input type="text" value="secret_service@hoho.com"/>
Email address to CC rates updating:	<input type="text" value="rates@hoho.com"/>
Email address to BCC rates updating:	<input type="text" value="secret_service_rates@hoho.com"/>
List of allowed domains (comma-separated):	<input type="text" value="www.campaigns-hoho.com,www.haha.com,www.hoho.com"/>
List of MCCs to be ignored during rate import:	<input type="text" value="101,102"/>

Default for self-registered partners

Add tab

The tab contains the following parameters:

- *Contract company*: the name of the legal entity
- *Alaris Invoice title*: name of the System that can be used in emails about user registration, password change and the like
- *Invoice filename pattern*: the filename pattern of the invoice cover sheet
- *Invoice details filename pattern*: the filename pattern of the invoice traffic details file
- *Invoice reference number format (inbound/outbound)*
- *Current invoice number (inbound/outbound)*
- *Credit-note reference number format (inbound/outbound)*
- *Current credit-note number (inbound/outbound)*
- *Email address list to CC finance-related emails*
- *Email address list to BCC finance-related emails*
- *Email address to CC rates updating*: email address for sending a copy of rate updates
- *Email address to BCC rates updating*: comma-separated emails for sending a copy of exported rates
- *List of allowed domains (comma-separated)*: list of domains assigned to the contract company. It is possible to use one and the same domain for different contract companies
- *List of MCCs to be ignored during rate import*: specify comma-separated MCCs that will be ignored during rate import (both automatic and regular). The rate can be still added using [SMS\Rates\Rate editor](#)^[244]. Also see the [Alaris YouTube video](#)
- *Default for self-registered partners*: select to assign the contract company to all newly registered partners (it is recommended to select the checkbox if users are allowed to register through the portals). User registration through the Wholesale portal is allowed by the parameter *Allow Wholesale portal user registration (1 - yes, 0 - no)* in [Administration\System settings\Partner portal](#)^[51]. User registration through Alaris Campaign Portal is available by default

Portals

Campaign Portal URL:	<input type="text" value="www.cportal-hoho.com"/>
Campaign Portal title:	<input type="text" value="Hornes and Hooves"/>
Wholesale portal URL:	<input type="text" value="www.haha.com"/>
Wholesale portal title:	<input type="text" value="Hornes and Hooves Wholesale"/>
Credit limit for new Campaign Portal clients:	<input type="text" value="10"/>
Initial payment for new Campaign Portal clients:	<input type="text" value="15"/>
Minimum payment amount for portal:	<input type="text" value="5"/>
Segment billing mode for new Campaign Portal clients:	<input type="text" value="4. Bill and calculate routing rate by segmen"/> ▾

- Use Authorize.net
- Use MobiMoney
- Use PayOnline
- Use PayPal
- Use PayU
- Use Secure Trading
- Use Stripe

Add tab, continued

- *Campaign Portal URL*: link to [Alaris Campaign Portal](#)^[380]
- *Campaign Portal title*: name of the Campaign Portal that can be used in emails about user registration, password change and the like
- *Wholesale portal URL*
- *Wholesale portal title*: name of the Wholesale portal that can be used in emails about user registration, password change and the like
- *Credit limit for new Campaign Portal clients*: the credit limit that is automatically assigned to a newly registered user of Alaris Campaign Portal
- *Initial payment for new Campaign Portal clients*: the amount that is automatically added to the balance of a newly registered user of Alaris Campaign Portal

NOTE: Decimal places can be used. If the parameter is left blank, the System takes the value from the same name parameter in [Administration\System settings\Partner portal](#)^[57]. If the value is set to 0, no amount will be added to the balance during registration.

- *Minimum payment amount for portal*: minimum payment amount for [Alaris Campaign Portal](#)^[380] or the [Wholesale portal](#)^[165]
- *Segment billing mode for new Campaign Portal clients*: serves to set the SMS billing option for a specific contract company. To set the billing mode for all contract companies, use the parameter *Segment billing mode for new Campaign Portal clients (1-5)* in [Administration\System settings\Partner portal](#)^[57]. Possible values include:

Reference books

- 1. *Bill by messages, exclude vendors with segment billing*
- 2. *Bill by messages, include vendors with segment billing*
- 3. *Bill by segments, calculate routing rate by message*
- 4. *Bill and calculate routing rates by segments*
- 5. *Bill by messages/segments depending on vendor mode*

NOTE: This parameter is used only in case the Campaign Portal user subscribes to an SMS pack. When the user subscribes to a specific rate plan, the billing mode is inherited from the respective parent product. See also the [Alaris YouTube](#) video.

- *Use Authorize.net, Use Mobimoney, Use PayOnline, Use PayPal, Use PayU, Use Secure Trading, Use Stripe:* select appropriate checkboxes to allow the respective payment systems in [Alaris Campaign Portal](#)^[380] and the [Wholesale portal](#)^[165]

NOTE: As MobiMoney can only use Rubles, if Rubles are not configured as a currency in [Reference books\Currency exchange rates](#)^[177], the System will not allow using the payment platform and will return an error.

NOTE: The [Wholesale portal](#)^[165] supports the use of the following payment systems: *Authorize.net, PayPal* and *Payonline*.

When necessary, use markers in the above parameters. Markers are alphanumeric strings in square brackets that serve as placeholders of information used in documents. For the list of markers supported by the System, see [Administration\System settings\Template manager\Markers](#)^[77].

NOTE: Prior to inserting markers in the *Add* tab fields, check that they are configured in [System settings\Financial module](#)^[43] (*Invoice reference number format* parameter) and [Administration\System settings\Template manager](#)^[75].

Click  to save the changes.

The *Edit* tab additionally contains the *Campaign Portal Terms & Conditions* and *Wholesale portal Terms & Conditions* fields that allow adding the text of Terms and Conditions. The user is asked to agree with them when registering through the [Alaris Campaign Portal](#)^[380] or the [Wholesale portal](#)^[165] or resetting the

password through the password reset link. Click  to configure the text. The Terms and Conditions can be loaded directly on the Campaign Portal server. The System uses domains specified in the *List of allowed domains (comma-separated)* field to select the appropriate Terms and Conditions for a specific Contract company. First, the System checks whether the appropriate Terms and Conditions are located in the *Reference books\Contract companies* interface. If none are found, the System searches on the Portal server. If none are found there, no Terms and conditions are displayed to the user. Terms and conditions are downloaded to the Portal server by request. To do this, contact the Alaris technical support team. If the Terms and conditions have been modified, the user is asked to accept them upon the next login to the interface. See also the [Alaris YouTube](#) video.

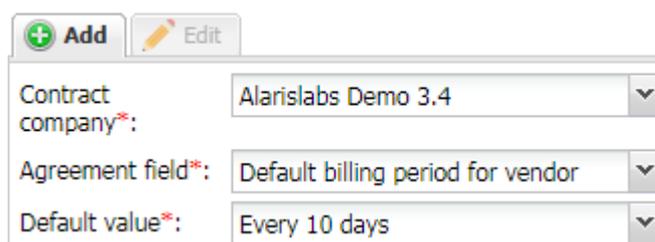
7.4.2 Agreements defaults tab

The *Agreement defaults* tab sheet allows setting default values for the [Carriers\Agreements](#)^[117] page parameters such as credit limits, billing periods and email lists for each contract company.

Contract companies		Agreement defaults	Payment systems
ID	Agreement field	Default value	Contract company
			All
3	Default credit limit for client	35	Alarislabs
6	Default billing period for vendor	Weekly	Alarislabs
5	Default billing period for client	Monthly	Alarislabs
7	Default credit limit for vendor	888	Alarislabs

Agreement defaults

To add a new default value, use the *Add* tab as illustrated below.



Add agreement default

Select the appropriate values in the following drop-down lists:

- *Contract company*
- *Agreement field*: field in the [Carriers\Agreements](#) page
- *Default value*

Click  to save the changes.

7.4.3 Payment systems tab

The *Payment systems* tab sheet contains information about the supported payment systems. The following payment systems are supported: Authorize.net, Mobimoney, PayPal, PayOnline, PayU, Secure Trading and Stripe.

NOTE: Prior to configuring payment systems, an account must be registered at the respective payment system.

NOTE: The [Wholesale portal](#) supports the use of the following payment systems: *Authorize.net*, *PayPal* and *Payonline*.

Contract companies		Agreement defaults		Payment systems	
Contract company		Paysystem name			
All	▼	All	▼		
Default		PAY_ONLINE			
Default		AUTHORIZE_NET			
Default		PAYU			
Default		PAYPAL			
Alarislabs		PAYPAL			
Alarislabs		AUTHORIZE_NET			

Payment systems

Payment systems are configured for each contract company separately. To add a new payment system for a specific contract company, use the *Add* tab at the right as shown below.

+ Add
✎ Edit

Contract company:	ACQ Ltd ▼
Paysystem name:	PayPal ▼
Deduct payment fee from partner:	10
Business:	am-facilitator@alarislabs.com
URL:	https://www.sandbox.paypal.com/cgi-bin/webscr

Add payment system

Configure the following fields:

- *Contract company*: select the appropriate contract company
- *Paysystem name*: select the payment system. Based on the selected system, configure the fields that appear:
 - For Authorize.net: authorization parameters for the service:
 - *API Login ID*
 - *Transaction Key*
 - For MobiMoney: authorization parameters for the service:
 - *Login*
 - *Terminal ID*
 - *Password*
 - *Article ID*
 - *Use Orange data*: enable sending a request to generate a receipt by Orange data online pay-box

- For Paypal:
 - *Deduct payment fee from partner*: when set to 1, PayPal payments will be created with the full amount without the deducted fee. When set to 0, PayPal payments will include the deducted fee (default behavior)
 - *Business*: authorization parameter for the accounts belonging to Paypal (e-mail address)
 - *URL*: URL used for confirmation of Paypal payments
- For PayU: authorization parameters for the service:
 - *API key*
 - *Account ID*
 - *Merchant ID*
- For PayOnline: authorization parameters for the service:
 - *MerchantId*:
 - *PrivateSecurityKey*
- For Secure Trading: authorization parameters for the service:
 - *Site reference*
 - *Merchant email*
 - *Password*

NOTE: To enable processing notifications from the payment system, contact Secure Trading to confirm the use of hash to protect payments and communicate its calculation procedure: *currencyiso3a*, *mainamount*, *sitereference*, *version*, *stprofile*, *ruleidentifier*, *stdefaultprofile*, *merchantemail*, *allurlnotification*, *stextraurlnotifyfields*, *sitesecuritytimestamp*, *password*.

- For Stripe: authorization parameters for the service:
 - *Publishable key*
 - *Secret key*

Click  to save the changes.

7.5 Currency exchange rates

The System supports multi-currency billing based on exchange rates to translate different currencies to the System currency. The *Reference Books\Currency exchange rates* page serves to manage the currencies used by the System owner's partners and keep their exchange rates up-to-date.

System currency: [USD](#)

Existing currencies: [\\$, 999, AED, AKS, ANTI, AUD, BAN, BYN, COP, EUR, EUR ECB, GZIP, JPY, KTZ, NEW CUR, RUB, Teesr, ZAR, ZBV, ZER, test](#) 

Exchange rates

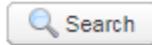
Currency: 

Rate relative to: 

Date from*: 

Date till*: 

Show actual rates

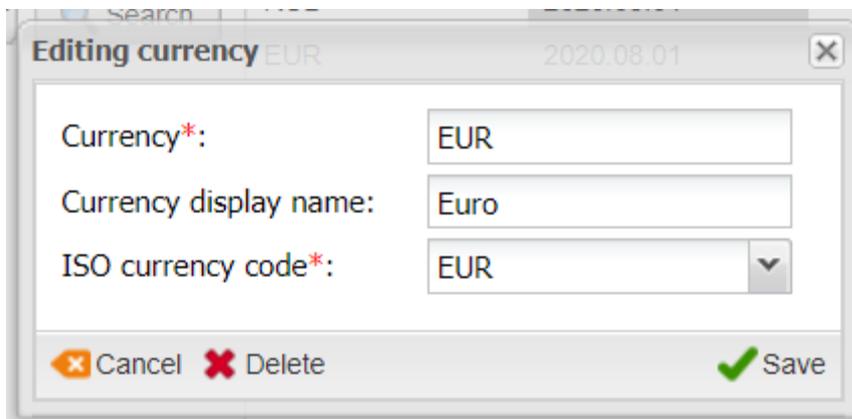
Currency	Date	Rate to USD
RUB	2019.12.09	0.015692
JPY	2019.12.09	0.009207
EUR	2019.12.09	1.109908
BYN	2019.12.09	0.472724
AUD	2019.12.09	0.684599
999	2019.10.28	1.550000
ZAR	2019.06.28	0.070668
AED	2019.06.28	0.272294

Currency exchange rates

The page contains the following information:

- *System currency*: the actual System currency
- *Existing currencies*: other currencies configured in the System

Click the link with the currency code to open the *Editing currency* window:



Editing currency EUR 2020.08.01 

Currency*:

Currency display name:

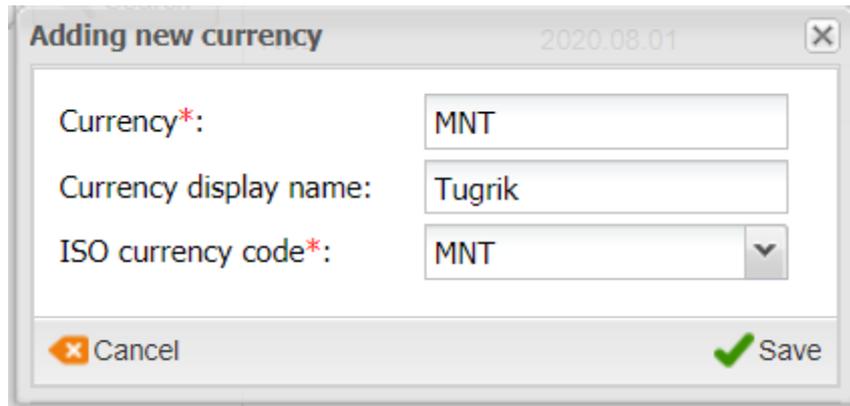
ISO currency code*: 

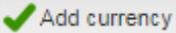
Editing currency

Enter the appropriate parameters in the corresponding fields. Click  **Edit currency** to confirm or  **Cancel** to discard the settings. Click  **Delete** to delete the currency.

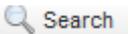
The  button opens the *Adding new currency* window:



Adding new currency

Enter the required parameters in the corresponding fields. Click  to confirm or  to discard the settings.

The bottom of the page contains exchange rates, which can be filtered by the currency name or validity period. Specify the values in the fields *Currency*, *Date from* and *Date till*. Select *Show actual rates* to display only exchange rates valid as of the current moment. Additionally, the field *Rate relative to* serves to select the currency relative to which other currencies will be displayed in the main table.

Click  to filter the records.

Add or delete the exchange rates using the  **Add** and  **Delete** buttons respectively. Recently updated but not saved records are marked in red reminding to click the  **Save** button before leaving the page. Exchange rates can be added, deleted and edited for the present, past and future periods. Exchange rate changes for past periods cause statistics recalculation, which is a time and resource consuming procedure, especially for huge traffic volumes.

The exchange rate values are defined as the cost of 1 currency unit in the System currency. For example, if the System currency is USD and 1 EUR = 1.4 USD, the exchange rate for EUR will be 1.4. This tip is opened by clicking the  **Help** button at the bottom of the page.

Currency exchange rates can be downloaded automatically. Contact the Alaris technical support team for configuration.

7.6 Product types

The *Reference Books\Product types* page contains information on the type of products registered in the System. Records highlighted in red are non-editable.

Product types can be used for the following purposes:

- In [Carriers\Products](#)^[103] the user specifies the *Product type* when creating a new product; it is also possible to filter product records by the *Product type* column
- In [Finance\Recurring fees](#)^[157] the user specifies the *Product type* field when creating regular charges to partners for continuous services such as server or data channel rental
- In [Finance\Charges](#)^[136] the user specifies the *Product type* field when creating a new charge detail record; it is also possible to filter charge records by the *Product type* field
- In [Finance\Invoices](#)^[142] the user can filter records by the *Product type* field

- The user can set the Product type properties *Unit* and *Description* in the markers [ChargeUnit] and [ChargeDescription] that are used in invoice templates (see more in [Administration\Template manager](#) ^[75])

The page is divided in two sections. The left section is a table of product types. The table contains the following information:

ID	Type name	Charge description	Unit	Finance only
5	Balance correction	Balance correction	Service	Yes
100	Correction	Correction charges	Service	No
6	DID	Voip traffic	Minute	No
8	DID/TFN fees	DID/TFN fees	Service	Yes
7	HLR	SMS	SMS	No
1	International	Voip traffic	Minute	No
102	Long number	Subscription fee for a number	Pcs	No

Product types

- ID*: internal identification number
- Type name*: name of the product type (the types highlighted in red are System types and are not editable)
- Charge description*: description of the chargeable services
- Unit*: measurement unit
- Finance only*: product types with the value Yes in this column are not displayed in [Carriers\Products](#) ^[103] and cannot be used to create new products. They can only be used in [Finance\Charges](#) ^[136] for creating charges and in [Finance\Invoices](#) ^[142] when filtering invoices. Product types created by the user have No in the *Finance only* column. See also the [Alaris YouTube](#) video

The right panel contains the *Add* and *Edit* tabs.

 Add
 Edit

Type name*:

Charge description*:

Unit*:

Add tab

Enter the above listed parameters in the appropriate fields. When through with defining the parameters, click  **Submit** to confirm or  **Reset** to discard the settings. Click  **Delete** to delete the selected record.

7.7 Countries and regions

The *Reference Books\Countries and regions* section serves to create lists of regional managers and region sets, which are used on the [SMS\Analytics](#) ^[215] page as a statistical layer component (*Client/Vendor Managers, Client/Vendor Region*).

7.7.1 Company region

The *Company region* table contains the following information:

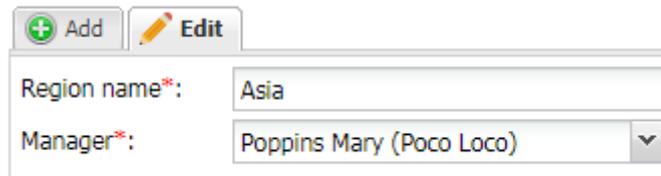
- *ID*: internal identification number
- *Region name*: name of the region
- *Manager*: name of the manager responsible for the region



ID	Region name	Manager
10107	Africa	poco (John Smith)
10024	America	Poco Loco (Mary Poppins)
10042	Asia	Chippolo (Chippo Lino)

Company region

The *Add* and *Edit* tabs in the upper right corner of the page allow assigning managers to regions. To activate the *Edit* tab, click on the record in the table. Enter the parameters in the corresponding fields. Fields marked with an asterisk (*) are required.



Add and Edit tabs

When through with defining the parameters, click  to confirm or  to discard the settings. Click  to delete the selected record.

7.7.2 Countries

The *Countries* table contains the following information:

- *ID*: internal identification number
- *Country*: name of the country
- *Region*: name of the region
- *Tax, %*: the applicable country-specific tax rate

ID	Country	Region	Tax, %
2	Antarctica	Polar	
3	Antigua	Caribbean	25.00
10298	Antigua and Barbuda	Caribbean	25.00
10299	Argentina	South America	
10300	Armenia	Asia	33.00

Countries

The *Edit* tab in the upper right corner allows assigning countries to regions and specifying the applicable tax rate (correct to the second decimal place).

Edit

Country:	Antarctica
Region:	Polar ▼
Tax, %:	1

Edit tab

Click **Submit** to confirm or **Reset** to discard the settings.

NOTE: If all records mentioning a country are removed from [SMS\Reference books\e.212/e.164 reference book editor](#), the country is removed from the System.

7.8 Units

The *Reference books\Units* page contains information on measurement units used in the System.

The page is divided in two sections: the table of units and the *Add/Edit* tabs. The table contains the following information:

ID	Unit name
1	Minute
2	SMS
3	Pcs
4	Service

Units

- *ID*: internal identification number
- *Unit name*: name of the unit

The *Add* and *Edit* tabs allow adding new records or editing existing ones. To activate the *Edit* tab, click on the record in the table. Enter the unit name in the corresponding field.

Unit name*:

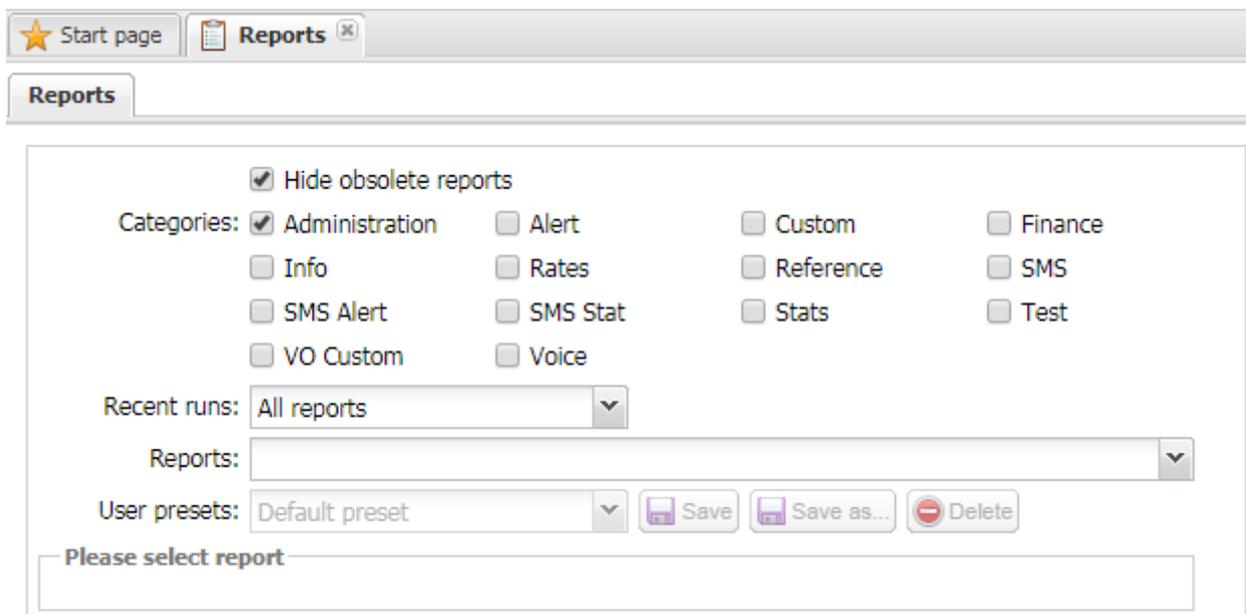
Add tab

When through with defining the parameters, click to confirm or to discard the settings. Click to delete the selected record.

8 Reports

8.1 Reports page overview

The *Reports* page enables creating custom reports based on any table in the System database.



The screenshot shows the 'Reports' page interface. At the top, there are two tabs: 'Start page' (with a star icon) and 'Reports' (with a document icon and a close button). Below the tabs is a 'Reports' header. The main content area contains several controls:

- A checked checkbox for 'Hide obsolete reports'.
- A 'Categories:' section with a grid of checkboxes:
 - Administration
 - Alert
 - Custom
 - Finance
 - Info
 - Rates
 - Reference
 - SMS
 - SMS Alert
 - SMS Stat
 - Stats
 - Test
 - VO Custom
 - Voice
- 'Recent runs:' with a dropdown menu set to 'All reports'.
- 'Reports:' with an empty dropdown menu.
- 'User presets:' with a dropdown menu set to 'Default preset' and three buttons: 'Save', 'Save as...', and 'Delete'.
- A text box at the bottom with the placeholder text 'Please select report'.

Reports page

The System is delivered with a pack of report templates covering most typical needs of wholesale carriers. The reports are named according to a pattern: the last word in the report name describes the functional area the report pertains to (e.g. *Reference*, *Stats*, *Finance*, *Administration*, *SMS Alert*, *SMS Stats*, *SMS* etc.)

The *Reports* page allows generating a report based on an existing template and contains the following parameters:

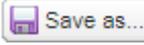
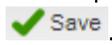
- *Categories*: the report category. When several categories are selected, the *Reports* drop-down list shows all reports included at least in one of the groups
- *Recent runs*: shows the reports generated for the past 24 hours, 3 days, week, 2 weeks or a month. Use this drop-down list for easy access to frequently used reports
- *Reports*: the list containing reports that are included in at least one of the groups checked in the *Categories*. Select a report from the drop-down list. A submenu with the report parameters will open below. Fill in the appropriate parameters
- *User presets*: allows saving the current report and schedule parameters as well as a list of recipients (for more detail, see below in this section)

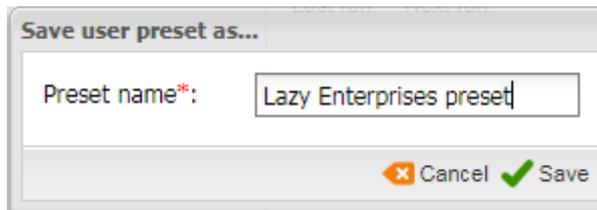
In the right hand panel check the flag *Is recurrent* if the report must be created regularly. Configure the time table as shown below.

5. In the *Telegram message* field supply the text of the notification. As Telegram does not support display of tables, only the content of this field will be sent to the messenger. The full report content can be emailed to predefined email addresses.

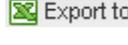
NOTE: The System only sends the results of recurrent reports if they are not void.

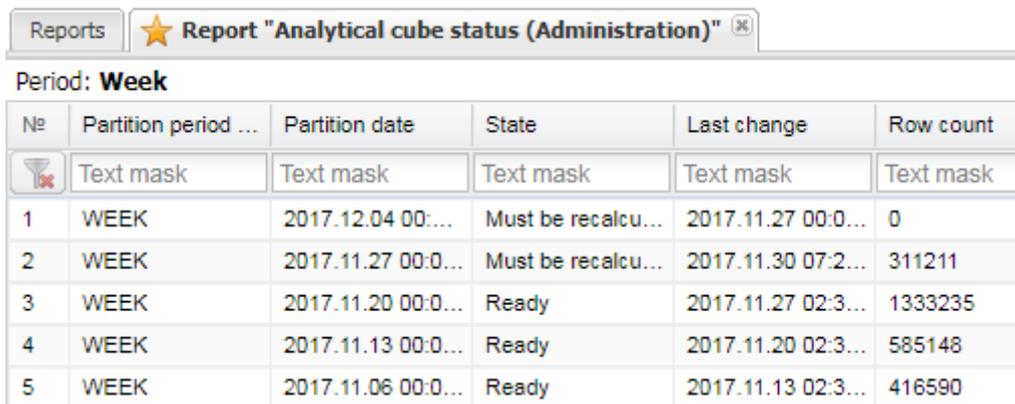
Click  to view the schedule of the next 10 runs of the report.

The user can save the current report and schedule parameters as well as a list of recipients. In the *User presets* field located above the report parameters click . In the dialog that appears specify the preset name and click .



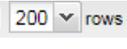
Save preset dialog

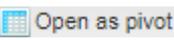
To generate a report, click  at the bottom of the left panel. The generated report will open in a new tab as illustrated in the figure below. Click  on the tab to close the report or cancel the report generation if still in progress. Click  or  to export the file to MS Excel or a .CSV file respectively.

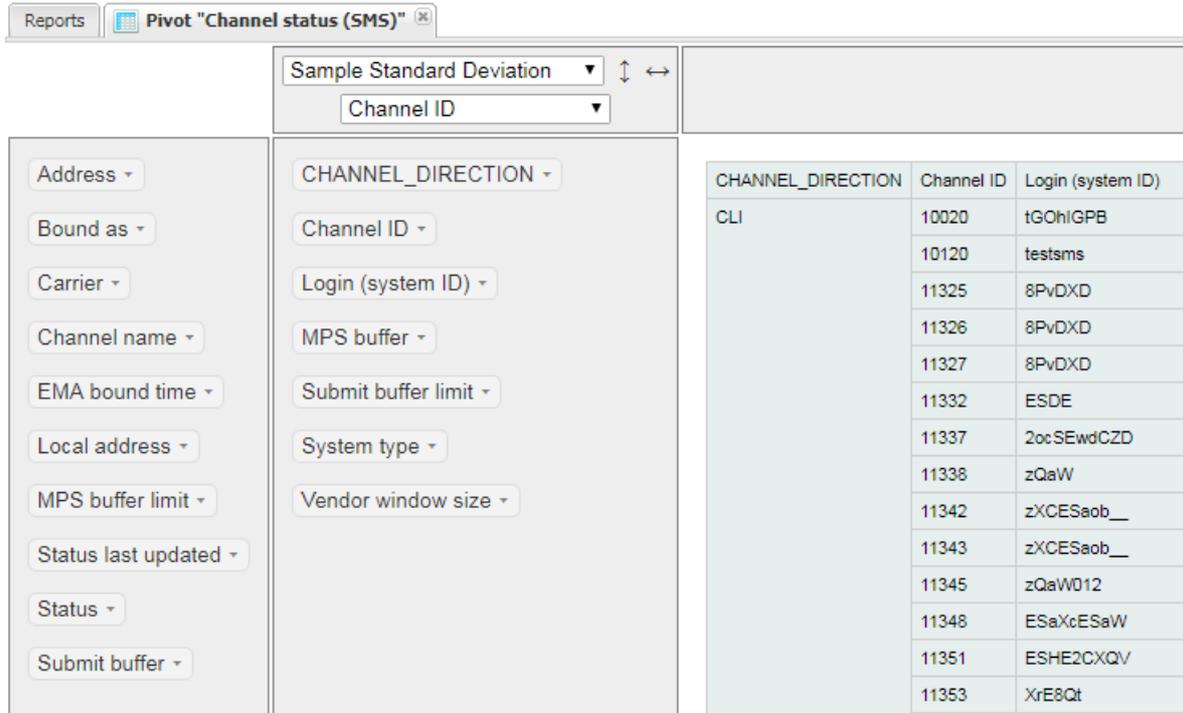


No	Partition period ...	Partition date	State	Last change	Row count
1	WEEK	2017.12.04 00:...	Must be recalcu...	2017.11.27 00:0...	0
2	WEEK	2017.11.27 00:0...	Must be recalcu...	2017.11.30 07:2...	311211
3	WEEK	2017.11.20 00:0...	Ready	2017.11.27 02:3...	1333235
4	WEEK	2017.11.13 00:0...	Ready	2017.11.20 02:3...	585148
5	WEEK	2017.11.06 00:0...	Ready	2017.11.13 02:3...	416590

Report example

You can select the number of rows displayed per page by using the control  at the bottom of the page. The setting is saved in the browser's local storage and will be applied to all reports you open.

Click  to view the report in a configurable summary table



Sample Standard Deviation
Channel ID

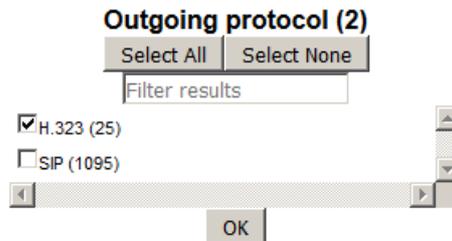
Address
Bound as
Carrier
Channel name
EMA bound time
Local address
MPS buffer limit
Status last updated
Status
Submit buffer

CHANNEL_DIRECTION
Channel ID
Login (system ID)
MPS buffer
Submit buffer limit
System type
Vendor window size

CHANNEL_DIRECTION	Channel ID	Login (system ID)
CLI	10020	tGOhIGPB
	10120	testsms
	11325	8PvDXD
	11326	8PvDXD
	11327	8PvDXD
	11332	ESDE
	11337	2ocSEwdCZD
	11338	zQaW
	11342	zXCESaob__
	11343	zXCESaob__
	11345	zQaW012
	11348	ESaXcESaW
	11351	ESHE2CXQV
	11353	XrE8Qt

Channel status (SMS) report

The left section of the page contains a list of report parameters. Drag and drop the parameter name from the left column to the right one. A column with the selected parameter will be added to the table in the right section of the page. You can also use the filter within each parameter to show specific value types. Click on the arrow next to the parameter name to open the selection dialog as shown in the figure below, and select value types to be displayed in the table.



Outgoing protocol (2)

Select All Select None

Filter results

H.323 (25)

SIP (1095)

OK

Selection dialog

If access to specific data in the System DB is required for creating a report not available on the *Reports* page, contact the Alaris support team for a description of the necessary DB tables and/or views. The most frequently used reports are described below.

8.2 Auto rate import change log (Administration)

The *Auto rate import rule change log (Administration)* report shows changes of auto import rules. To access the report, in the *Categories* section select *Administration*; in the *Reports* drop-down list select *Auto rate import rule change log (Administration)* or simply type the name of the report.

Hide obsolete reports

Categories: Administration Alert Custom Finance
 Info Rates Reference SMS
 SMS Alert SMS Stat Stats Test
 VO Custom Voice

Recent runs:

Reports:

User presets:

Params of report "Administration: Auto rate import rule change log"

Description: **Auto rate import rule change log.**
The period of data availability is defined in Administration->System settings-> Common-> Log store period, days 30 days by default

Rule ID:

From:

To:

Auto rate import change log (Administration) report settings

Configure the following parameters:

- *Rule ID*: ID of the auto import rule
- *From/To*: the period of changes

Click  **Run report** to execute the report.

An example of the report is shown in the figure below.

Reports ★ Report "Auto rate import rule change log (Administration)"									
Rule ID: 10006; From: 2019.10.13 00:00:00; To: 2019.10.14 09:30:00									
Nº	Author	LOG_ID	LOG_TIME	LOG_ACTION	SESSION_ID	EXEC_ID	RULE_ID	CAR_ID	PRODUCT_ID
	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask
1	Alaris (50.7.93....	95162747	2019.10.14 06:...	ud	134857369	505997617	10006	1412	99869
2	Alaris (50.7.93....	95162747	2019.10.14 06:...	ui	134857369	505997617	10006	1412	99869
3	Alaris (50.7.93....	95163003	2019.10.14 06:...	ud	134857369	505999095	10006	1412	99869
4	Alaris (50.7.93....	95163003	2019.10.14 06:...	ui	134857369	505999095	10006	1412	99869
5	Alaris (50.7.93....	95163005	2019.10.14 06:...	ud	134857369	505999126	10006	1412	99869
6	Alaris (50.7.93....	95163005	2019.10.14 06:...	ui	134857369	505999126	10006	1412	99869
7	Alaris (50.7.93....	95163027	2019.10.14 06:...	ud	134857369	505999550	10006	1412	99869
8	Alaris (50.7.93....	95163027	2019.10.14 06:...	ui	134857369	505999550	10006	1412	99869
9	Alaris (50.7.93....	95163029	2019.10.14 06:...	ud	134857369	505999594	10006	1412	99869
10	Alaris (50.7.93....	95163029	2019.10.14 06:...	ui	134857369	505999594	10006	1412	99869

Auto rate import change log (Administration) report

8.3 Change logs (Administration)

Change logs keep track of all the changes made by users to System objects for the past 30 days (the period is configured by the parameter *Log store period, days* at [Administration\System settings\Common](#)^[35]). These logs allow identifying the user that made the changes (when fixing something that went wrong, for example).

To view the log, in the *Categories* section select *Administration*; in the *Reports* drop-down list select the appropriate log. In the *Params of report* section select appropriate parameters. Click  **Run report**.

The following change logs exist in the System (available in the *Administration* section):

- Agreement change log
- Balance change log
- Carrier change log
- Permission change log
- Product change log
- SMS channel change log
- SMS rate change log
- SMS POI change log
- SMS routing rule change log
- SMSC change log
- System settings change log

An example of the *SMS channel change log (Administration)* is shown below.

Reports ★ Report "SMS channel change log (Administration)" (x)						
No	Author	LOG_ID	LOG_TIME	LOG_ACTION	SESSION_ID	CHANNEL_ID
	<input type="text" value="Text mask"/>					
1	Alaris (10.146.2.8)	30385493	2016.09.06 15:5...	i	45587976	12100

SMS channel change log (Administration)

8.4 REST API changes (Administration)

The *REST API changes (Administration)* report serves to track changes in API methods between the versions.

To access the report, in the *Reports* drop-down list select *REST API changes (Administration)*.

Hide obsolete reports

Categories: Administration Alert Custom Finance
 Info Rates Reference SMS
 SMS Alert SMS Stat Stats Test
 VO Custom Voice

Recent runs: All reports

Reports: REST API changes (Administration)

User presets: Default preset Save Save as... Delete

Params of report "Administration: REST API changes"

Description: **Compare two REST API versions**

From version (V2): 3.5.4

Till version (V1): 3.5.5

Parameters of REST API changes (Administration)

Specify the versions between which the comparison must be performed:

- *From version (V2)*: specify the starting version for the comparison (the version starting from which the comparison must be performed)
- *Till version (V1)*: specify the last version for the comparison (normally the current version)

To generate the report, click  **Run report** at the bottom of the left panel. An example of the report is shown in the figure below.

Reports ★ Report "REST API changes (Administration)"

From version (V2): 3.5.4; Till version (V1): 3.5.5

Nº	Resource	Parameter	Change V2=>V1	V2	V1	V1 description
	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask
1	GET:agreement	vat_number	created in 3.5.5	3.5.4	3.5.5	Get agreement list
2	POST:agreement	vat_number	created in 3.5.5	3.5.4	3.5.5	Add new agreement
3	GET:agreement/{id}	vat_number	created in 3.5.5	3.5.4	3.5.5	Get specific agreement
4	PUT:agreement/{id}	vat_number	created in 3.5.5	3.5.4	3.5.5	Update specific agreement

REST API changes (Administration) report

8.5 System log (Administration)

The *System log (Administration)* stores information about all operations and processes in the database. It serves to monitor the database operability, check that the statistics is calculated correctly, detect critical database errors etc.

Params of report "Administration: System log"

Description: **Shows all activities of the system as well as errors and operations.**
The period of data availability is defined in Administration->System settings->Common-> Log store period, days
30 days by default

Operation:

From:

To:

Parameters of System log (Administration)

To view the log, in the *Categories* section select *Administration*; in the *Reports* drop-down list select *System log (Administration)*. In the *Params of report* section in the *Operation* field specify the database operation (use the * mask symbol if necessary). In the *From* and *To* fields specify the period for the report. Click  **Run report**.

8.6 System tasks (Administration)

The *System tasks (Administration)* report contains details of scheduled tasks launched from all System interfaces. To access the report, in the *Categories* section select *Administration*; in the *Reports* drop-down list select *System tasks (Administration)* or simply type the name of the report.

Hide obsolete reports

Categories: Administration Alert Custom Finance
 Info Rates Reference SMS
 SMS Alert SMS Stat Stats Test
 VO Custom Voice

Recent runs:

Reports:

User presets:

Params of report "Administration: System tasks"

Description: **No description**

System tasks (Administration) report settings

Click  **Run report** to execute the report.

An example of the report is shown in the figure below.

Reports ★ Report "System tasks (Administration)"

Nº	Job name	Status	Information	Create date	Owner user name	Task type	Task parameters
1	ratanatask9	Done	Ready. Time spent: +0 00:01:10	2015.08.07 17:...	Alaris	Rate analysys	{"analysis":"9", "...
2	ratanatask5	Done	Ready. Time spent: +0 00:01:24	2015.06.02 09:...	Alaris	Rate analysys	{"analysis":"5", "...
3	ratanatask4	Done	Ready. Time spent: +0 00:00:56	2015.06.02 01:...	Alaris	Rate analysys	{"analysis":"4", "...
4	ratanatask3	Done	Ready. Time spent: +0 00:01:21	2015.03.27 15:...	Alaris	Rate analysys	{"analysis":"3", "...

System tasks (Administration) report

8.7 SMS analytical cube status (Administration)

Analytical cubes are pre-calculated statistical tables based on the OLAP (online analytical processing) technology. The System aggregates multi-dimensional data for various objects and their combinations. This method allows fast and easy retrieval of any type of statistics – for example, for each client the System knows to which countries the traffic was sent, to which network in each country, to which MCCMNC in each network, to which vendors for each MCCMNC etc. This information is collected in minute, hour, day and month increments and is stored in analytical cubes. Cube updating is a time consuming process and is therefore performed either at the end of a time increment or when a EDR threshold is reached (whichever happens first).

The cube updating parameters are configured in [Administration\System settings\SMS](#) ⁵⁶¹ section illustrated below.

Stats calculation delay, minutes (day)	45
Stats calculation delay, minutes (hour)	15
Stats calculation delay, minutes (min)	1
Stats calculation delay, minutes (month)	1300
Stats calculation delay, minutes (week)	300
Stats calculation threshold (EDR/day, MA)	2500
Stats calculation threshold (EDR/hour, MA)	1000
Stats calculation threshold (EDR/min, MA)	17
Stats calculation threshold (EDR/month, MA)	48000
Stats calculation threshold (EDR/week, MA)	36000
Stats calculation threshold (SMS/Hour, SA)	1000
Switch URL template for sms test send	http://127.0.0.1:8001/api?command=submit...
Traffic details days count	62
Week cube partition count	40

Cube update parameters

The following parameters are available:

- *Auto threshold calculation (0 - no, 1 - yes):* when the value is 1, the cube update thresholds are calculated automatically
- *Stats calculation delay, minutes (day/hour/min/month):* the delays are configured for each time increment (minute, hour, day, week, and month) to allow the entirety of data to be collected for the completed increment. For example, the value 45 in the parameter *Stats calculation delay, minutes (day)* means that the statistics for the past day will be updated on 00:45 of the following day in case the amount of new records does not exceed the threshold defined in *Stats calculation threshold (EDR/day)*
- *Stats calculation threshold:* the threshold (in EDR/min, EDR/hour, EDR/week, EDR/month). When reached, the statistics will be recalculated even if the increment is not yet complete

The thresholds must be configured based on the intensity of traffic; otherwise the analytics may be displayed with a noticeable delay. For example, during initial System tests when the SMS count is low it is advisable to set low thresholds for the minute/hour/day increments.

Recalculate current day stats at, hours (0-23, 1-fold)	null
Recalculate current hour stats at, mins (0-50, 10-fold)	null

Recalculate stats parameters

Additionally, it is possible to configure forced recalculation of day and hour statistics at the specified hour and minute respectively. The following parameters are used for that purpose:

- *Recalculate current day stats at, hours (0-23, 1-fold)*: any integer value from 0 to 23. For example, the value 23 means that the statistics for the current day will be recalculated at 23:00 on the same day
- *Recalculate current hour stats at, mins (0-50, 10-fold)*: specify 0, 10, 20, 30, 40 or 50. For example, the value 30 means that the statistics for the current hour will be recalculated at 30 minutes of the current hour

The *Analytical cube status* report provides information about the general status of the cubes and the cube update schedule.

Reports

Hide obsolete reports

Categories: Administration Alert Custom Finance
 Info Rates Reference SMS
 SMS Stat Stats Test VO Custom

Recent runs: All reports

Reports: SMS Analytical cube status (Administration)

Params of report "Administration: SMS Analytical cube status"

Description: **No description**

Period: Week

SMS Analytical cube status report parameters

To generate the report, in the *Categories* section select *Administration*; in the *Reports* drop-down list select *SMS Analytical cube status (Administration)*; in the *Period* drop-down list select the appropriate period (*Minute, Hour, Day, Week, Month or Financial*). Click  **Run report**.

NOTE: Financial are specialized cubes calculated by billing period. Their calculation delay is configured by the parameter *Invoice generation delay, hours* at [Administration\System settings\Financial module](#)

Period: **Week**

No	Partition period t...	Partition date	State	Last change	Row count	New EDR count..
1	WEEK	2016.10.24 00:0...	Must be recalcul...	2016.10.17 00:0...	0	
2	WEEK	2016.10.17 00:0...	Must be recalcul...	2016.10.17 13:5...	58876	60303
3	WEEK	2016.10.10 00:0...	Ready	2016.10.17 02:2...	79520	0

Analytical cube status report

The report table contains the following columns:

- *Partition period*: the cube type (minute, hour, day, week, month or financial)
- *Partition date*: the increment date and time
- *State*: *Ready* or *Must be recalculated*
- *Last change*: date and time of the last update
- *Row count*: the number of rows
- *New EDR count*: the number of new EDRs after update
- *Recalculation status*: estimated cube calculation date and time

8.8 SMS Volume/ASR/DLRt monitoring (Alert)

The *SMS Volume/ASR/DLRt monitoring (Alert)* report serves to monitor the dynamic of the traffic metrics.

Hide obsolete reports

Categories: Administration Alert Custom Finance
 Info Rates Reference SMS
 SMS Stat Stats Test VO Custom

Recent runs: All reports

Reports: SMS Volume/ASR/DLRt monitoring (Alert)

Params of report "Alert: SMS Volume/ASR/DLRt monitoring"

Description: **No description**

Previous period start: 2017.09.17 12:07:00

Previous period end: 2017.09.17 12:12:00

Current period start: 2017.09.17 12:12:00

Current period end: 2017.09.17 12:17:00

min. Δ Volume, %: 20

negative
 positive

min. Δ ASR, %: 20

negative
 positive

min. Δ DLRt, %: 20

negative
 positive

SMS Volume/ASR/DLRt monitoring (Alert)

To access the report, in the *Reports* drop-down list select *SMS Volume/ASR/DLRt monitoring (Alert)*.

Configure the following parameters:

- *Previous period start/end*: the past period that will be compared with the current period

- *Current period start/end*: the period for comparison
- *min. Δ volume, %*: the minimum volume difference (in percent) between the periods that will be included in the report
 - select *negative* to display the negative delta (decrease in volume) or *positive* to show increase
- *min. Δ DLRT, %*: the minimum DLR(t) delta (in percent) that will be included in the report
 - select *negative* to display the negative delta (decrease in DLR(t)) or *positive* to show increase

To generate the report, click  at the bottom of the left panel. An example of the report is shown below.

Reports ★ Report "SMS Volume/ASR/DLRT monitoring (Alert)"

Previous period start: **2017.10.20 09:09:00**; Previous period end: **2017.10.20 09:14:00**; Current period start: **2017.10.20 09:14:00**
 ASR, %: **20; negative; positive**; min. Δ DLRT, %: **20; negative; positive**

№	Client product	Vendor product	Country	Net	MCCMNC	Dial code	Traffic type
	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask
1	Brexit Telecom -...	Wizard Telecom...	Canada	Rogers Wireles...	302370		MT
2	Brexit Telecom -...	Dorado El Telec...	Indonesia	Telkomsel	510010		MT
3	Brexit Telecom -...	Dorado El Telec...	Malaysia	DiGi Telecomm...	502016		MT
4	ConTIGO Mobil...	SoloVesi - Stan...	Burundi	Smart Mobile	642007		MT
5	Dorado El Telec...	ConchisCall - W...	Brunei Darussal...	All networks	528		MT
6	Glasgow Range...	Award Wieners ...	Cyprus	Cytamobile-Vod...	280001		MT
7	Hamlet Telecom...	Dorado El Telec...	Italy	Vodafone Omnit...	222010		MT
8	Hamlet Telecom...	Dorado El Telec...	Italy	Wind Telecomu...	222088		MT
9	No Lllamar Oy - ...	Brexit Telecom -...	Oman	OMAN MOBILE	422002		MT

Report example

8.9 ASR alert (SMS)

ASR alert (SMS) is a report that gathers information at regular intervals and sends notifications if preset ASR threshold values are exceeded.

To generate the report, in the *Categories* section select *SMS*; in the *Reports* drop-down list select *ASR alert (SMS)*.

Hide obsolete reports

Categories: Administration Alert Custom Finance
 Rates Reference SMS SMS Stat
 Stats Test VO Custom

Recent runs: All reports

Reports: ASR alert (SMS)

Params of report "SMS: ASR alert"

Description: **No description**

Period (minutes): 5

ASR threshold (abs): 10

ASR threshold (%): 10

ASR alert (SMS) report parameters

In the *Params of report* section define the report parameters:

- *Period (minutes)*: the period for which the data is calculated

NOTE: The report will only be sent if the ASR exceeded the threshold values. It is recommended to set the period to 5 minutes.

- *ASR threshold (abs)*: ignore routes with ASR below this value
- *ASR threshold (%)*: send alert when ASR drops by this percentage as compared to the previous period

In the right hand panel in the *List of recipients* field specify the email address(es) for sending the report. Set the schedule (for example, configure the report to run every 5 minutes). Click .

According to the settings illustrated above, and the 5-minute schedule, the System will check all routes every 5 minutes, compare the ASR values to those in the previous 5 minutes and notify the System owner of any events when the ASR value drops by 10 percent. An example of the report is illustrated below.

Period (minutes): 5; ASR threshold (abs): 10; ASR threshold (%): 10

No	Triggered value	ASR (previous)	ASR (current)
	Text mask	Text mask	Text mask

ASR alert (SMS) report

NOTE: This report can be used as an example for creating other alerting reports that are sent to the user only when a preset threshold is exceeded.

8.10 Available vendor routes (SMS)

The *Available vendor routes (SMS)* report shows the vendors that can terminate a message for specific MCCMNCs available in a customer rate deck.

Recent runs:

Reports:

User presets:

Params of report "SMS: Available vendor routes"

Description: **No description**

Client:

Product type:

Country:

Rates effective at:

Available vendor routes (SMS) report settings

To access the report, in the *Reports* drop-down list select *Available vendor routes (SMS)*. Specify the following report parameters:

- *Client*
- *Product type*
- *Country*
- *Rates effective at*: specify the date when the rate becomes active

Click  **Run report**. An example of the report is shown in the figure below.

Reports ★ Report "Available vendor routes (SMS)"

Client: **All**; Product type: **All**; Country: **All**; Rates effective at: **2018.04.05**

Nº	Client product	Country	...	MCCMNC (client)	Rate (client)	Curr (client)	Vendor product	MCCMNC (ven..
	Text mask	Text mask	Te	Text mask	Text mask	Text mask	*superb*	Text mask
1	1-To-Allzz - 6460_child	Afghanistan	...	412050	0.50002	RUB	AK_SUPERB_TEST - new one 2	412050
2	1-To-Allzz - 6460_child	Afghanistan	...	412040	0.50002	RUB	AK_SUPERB_TEST - new one 2	412040
3	1-To-Allzz - 6460_child	Albania	...	276001	0.50012	RUB	AK_SUPERB_TEST - new one 2	276001
4	1-To-Allzz - 6460_child	Albania	...	276003	0.50012	RUB	AK_SUPERB_TEST - new one 2	276003
5	1-To-Allzz - 6460_child	Albania	...	276004	0.50013	RUB	AK_SUPERB_TEST - new one 2	276004
6	1-To-Allzz - 6460_child	Albania	...	276002	0.50011	RUB	AK_SUPERB_TEST - new one 2	276002
7	1-To-Allzz - 6460_child	Algeria	...	603002	0.50006	RUB	AK_SUPERB_TEST - new one 2	603002
8	1-To-Allzz - 6460_child	Algeria	...	603001	0.50008	RUB	AK_SUPERB_TEST - new one 2	603001
9	1-To-Allzz - 6460_child	Algeria	...	603003	0.50018	RUB	AK_SUPERB_TEST - new one 2	603003
10	1-To-Allzz - 6460_child	Andorra	...	213003	0.50006	RUB	AK_SUPERB_TEST - new one 2	213003
11	1-To-Allzz - 6460_child	Angola	...	631002	0.50010	RUB	AK_SUPERB_TEST - new one 2	631002
12	1-To-Allzz - 6460_child	Anguilla	...	365840	0.50005	RUB	AK_SUPERB_TEST - new one 2	365840
13	1-To-Allzz - 6460_child	Antigua a...	...	344030	0.50007	RUB	AK_SUPERB_TEST - new one 2	344030
14	1-To-Allzz - 6460_child	Antigua a...	...	344920	0.50011	RUB	AK_SUPERB_TEST - new one 2	344920

Available vendor routes (SMS) report

8.11 Channel status (SMS)

The *Channel status (SMS)* report shows the current state of client and vendor SMPP binds, and is updated every minute. This report is highly instrumental when establishing connection with a new partner carrier.

To generate the report, in the *Categories* section select *SMS*; in the *Reports* drop-down list select *Channel status (SMS)*. Select *Show disabled* checkbox to include SMS channels disabled by the System owner. Click [Run report](#).

An example of the report is shown in the figure below.

Reports ★ Report "Channel status (SMS)" ✕							
No	Carrier	Channel ID	Channel name	CHANNEL_DIR...	Login (system ID)	EMA bound time	Bound as
	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask
1	ALARIS TEST	10020	ALARIS TEST	CLI	tGOhIGPB	0.000	TR
2	ALARIS TEST	12020	ALARIS TEST	CLI	user_1003	0.000	TR
3	Alarislabs_NEW	11980	Alarislabs_NEW	CLI	user_1530	0.000	TR
4	Alice Wondersy...	11338	Alice_auto257	CLI	zQaW	0.000	TR
5	Alice Wondersy...	11345	Alice_auto264	CLI	zQaW012	0.000	TR
6	Alice Wondersy...	11355	Alice_auto274	CLI	zQaW	0.000	TR

Channel status (SMS) report

8.12 Channel status updates (SMS)

The *Channel status updates (SMS)* report shows the state of client and vendor SMPP binds for a predefined period. It is similar to the *Channel status (SMS)* report except the latter is updated every minute whereas this report serves rather to view the data for a specific period.

Hide obsolete reports

Categories: Administration Alert Custom Finance
 Info Rates Reference SMS
 SMS Alert SMS Stat Stats Test
 VO Custom Voice

Recent runs:

Reports:

User presets:

Params of report "SMS: Channel status updates"

Description: **No description**

Start date/time:

End date/time:

Changed only

Channel status updates (SMS) report settings

To generate the report, in the *Categories* section select *SMS*; in the *Reports* drop-down list select *Channel status updates (SMS)*. Specify the period in the fields *Start/End date/time*. Select *Changed only* to display only channels whose status was changed. Click [Run report](#).

An example of the report is shown in the figure below.

Reports ★ Report "Channel status (SMS)"

Nº	Carrier	Channel ID	Channel name	CHANNEL_DIR...	Login (system ID)	EMA bound time	Bound as
	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask
1	ALARIS TEST	10020	ALARIS TEST	CLI	tGOhIGPB	0.000	TR
2	ALARIS TEST	12020	ALARIS TEST	CLI	user_1003	0.000	TR
3	Alarislabs_NEW	11980	Alarislabs_NEW	CLI	user_1530	0.000	TR
4	Alice Wondersy...	11338	Alice_auto257	CLI	zQaW	0.000	TR
5	Alice Wondersy...	11345	Alice_auto264	CLI	zQaW012	0.000	TR
6	Alice Wondersy...	11355	Alice_auto274	CLI	zQaW	0.000	TR

Channel status updates (SMS) report

8.13 EDR export (SMS)

The *EDR Export (SMS)* report serves to export EDR records as XSL files.

To generate the report, in the *Categories* section select *SMS*; in the *Reports* drop-down list select *EDR Export (SMS)*. In the *Params of report* section select appropriate parameters as shown in the figure below. Set the schedule if necessary and click **Run report**.

Params of report "SMS: EDR Export"

Description: Export of EDRs

From: 2016.09.22 00:00:00

Till: 2016.09.23 00:00:00

Client product: PocoDinero Enterprises - Prer

Vendor product: Boring Enterprises - Retail (U...

Client channel id:

Vendor channel id:

Message ID:

Transaction ID:

Status: ACCEPTD
 ACKED
 CLN CHN NOT BND
 DELETED
 DELVRD

Client MCCMNC code: *

Vendor MCCMNC code: *

SRC number: *

DST number: *

EDR Export (SMS) report parameters

An example of the report is shown in the figure below.

Reports							
★ Report "Channel status (SMS)"							
★ Report "EDR Export (SMS)"							
From:: 2016.10.12 00:00:00; Till:: 2016.10.13 00:00:00; Client product: not specified ; Vendor product: specified ; Message ID: not specified ; Transaction ID: not specified ; Status: not specified ; Client MCCMN							
No	Event time	Message ID	Transaction ID	Message text	Seg	Status	Is Success
	Text mask	Text mask	Text mask	Text mask	Te:	Text mask	Text mask
1	2016.10.12 00:00:00	13497BDD-E7E3...				DELIVRD	Yes
2	2016.10.12 00:00:00	13497BDE-0098...				DELIVRD	Yes
3	2016.10.12 00:00:00	13497BDE-0098...				DELIVRD	Yes
4	2016.10.12 00:00:00	13497BDD-E30...				UNDELIV	No
5	2016.10.12 00:00:00	13497BDD-E30...				UNDELIV	No
6	2016.10.12 00:00:00	13497BDD-E30...				UNDELIV	No
7	2016.10.12 00:00:00	13497BDD-E30...				UNDELIV	No
8	2016.10.12 00:00:00	13497BDD-E30...				UNDELIV	No

EDR Export report

NOTE: The *Client cost* and *Vendor cost* fields in the report are calculated based on the *SMS billing option* selected for the product. See also the [Alaris YouTube](#) video.

Alternatively, EDR records can be exported in the [SMS Analytics](#) ²¹³ page using the  button.

8.14 LCR analysis (SMS)

LCR analysis (SMS) is a report that allows comparing a product with least cost rates that exist in the System. The report shows five least cost vendors per MCCMNC.

To access the report, in the *Categories* section check *SMS*; in the *Reports* drop-down list select *LCR Analysis (SMS)*.

Params of report "SMS: LCR analysis"

Description: **The report shows 5 least cost vendor rates per MCCMNC.**

To run the report for one country - check "test single country" and choose a country you want to check all MCCMNCs for LCR vendor rates.

To check a single MCCMNC - check box "test single MCCMNC" and insert MCCMNC to find LCR rates.

Report result shows the following fields for each vendor:
 LCR# Vendor: Vendor product name
 LCR# MCCMNC: MCCMNC of the rate
 LCR# Rate: Rate in account currency and in system currency
 LCR# Margin: Rate's margin
 LCR# Margin% : Margin percentage relative to cost
 LCR# Volume: Volume in the last N days. N is set in report settings.
 LCR# ASR: Number of successfully sent SMS for the last N days.
 LCR# DLRs: Number of successful DLR reports for the last N days.
 LCR# DLRT: Number of total DLR reports for the last N days.

Master product: Vendor - ACQ_Vendor1 - SMS

Currency to convert all rates (system by default): \$

test single MCCMNC:

MCCMNC:

Dial code (optional):

Rate (optional):

Rate currency (optional):

test single country:

Country:

test all available destinations

Vendor product descriptions:

<input type="checkbox"/>	1
<input type="checkbox"/>	111
<input type="checkbox"/>	149411262552
<input type="checkbox"/>	15947

Vendor products: Selected: All 

Traffic stats for last, days: 7

Currency exchange rate date: 2019.04.01

Min. volume:

Min. ASR, %:

Min. DLR(s), %:

Min. DLR(t), %:

Min. vendor rate (system currency):

Max. vendor rate (system currency):

LCR Analysis settings

In the *Params of report* section select the appropriate parameters as detailed below:

- *Master product*: the product to which least cost rates will be compared
- *Currency to convert all rates (system by default)*: select to convert all rates to the specified currency. If not set, rates are converted to the System currency. See also the [Alaris YouTube](#) video
- *test single MCCMNC*: check the flag and supply the MCCMNC code in the field below for least cost rates for the MCCMNC. The *Master product* field becomes inactive
- *Dial code, Rate, Rate currency (optional)*: supply the parameters if necessary
- *test single country*: check the flag to generate a report for a single country; select the country in the drop-down list below
- *Test all available destinations*: select to search the rates for all MCCMNCs available in the reference book
- *Vendor product descriptions*: select the appropriate product types
- *Vendor products*: click  to open the product multi-picker and choose the products

- *Traffic stats for past, days*: indicate the period (in days) for which the report will be generated
- *Currency exchange rate date*: select the date of the currency exchange rate
- *Min. volume*: indicate the minimum amount of SMS
- *Min. ASR, %*: specify the minimum ASR value
- *Min. DLR(s), %*: provide the minimum DLR(s) value (the percentage of SMS successfully received by the end user with respect to the number of messages received by the carrier)
- *Min. DLR(t), %*: provide the minimum DLR(t) value (the percentage of SMS delivered to the end user with respect to the total number of message send attempts)
- *Min./Max. vendor rate (system currency)*: specify the minimum and/or maximum vendor rate

To generate the report, click  **Run report** at the bottom of the left panel. The report is illustrated below.

Master product: **not specified**; test single MCCMNC; MCCMNC: **1213455**; Dial code (optional): **not specified**; Rate (optional Vendor product types: **Gold,LCR,Premium,Premium SMS,Retail,Silver,Special,Standard,Wholesale**; Vendor products: **All**; **not specified**; Min. ASR, %: **not specified**; Min. DLR(s), %: **not specified**; Min. DLR(t), %: **not specified**

No	Master product	Country	Network	MCCMNC	Mas	LCR1: Vendor	LCR1: ...	LCR1: Rate
	Text mask	Text ma	Text mask	Text mask	Te:	Text mask	Text mask	Text mask
1	CLIENT RATE TEST			1213455				
2	COUNTRY TEST	Finland	Alands Mobiltelefon	244014		Hen-Parking Zone - LCR	244014	0.00080 (€ 0.00080)
3	COUNTRY TEST	Finland	All networks	244		Hen-Parking Zone - LCR	244013 244021 244091	0.00100 (€ 0.00100) 0.00100 (€ 0.00100) 0.00100 (€ 0.00100)
4	COUNTRY TEST	Finland	DNA Ltd	244003		Hen-Parking Zone - LCR	244003	0.00060 (€ 0.00060)
5	COUNTRY TEST	Finland	DNA Ltd	244012		Hen-Parking Zone - LCR	244012	0.00060 (€ 0.00060)
6	COUNTRY TEST	Finland	DNA Verkot Oy	244004		Hen-Parking Zone - LCR	244	0.00080 (€ 0.00080)
7	COUNTRY TEST	Finland	Elisa Corporation	244021		Hen-Parking Zone - LCR	244021	0.00100 (€ 0.00100)
8	COUNTRY TEST	Finland	Elisa Oyj	244005		Hen-Parking Zone - LCR	244005	0.00090 (€ 0.00090)
9	COUNTRY TEST	Finland	Globalstar Northern ...	244000		Hen-Parking Zone - LCR	244	0.00080 (€ 0.00080)
10	COUNTRY TEST	Finland	Sonera	244091		Hen-Parking Zone - LCR	244091	0.00100 (€ 0.00100)

LCR Analysis report

The report contains the following fields for each vendor:

- *LCR# Vendor*: vendor product name
- *LCR# MCCMNC*: MCCMNC of the rate
- *LCR# Rate*: rate in account currency and in System currency
- *LCR# Margin*: rate margin
- *LCR# Margin%*: margin percentage relative to cost
- *LCR# Volume*: volume in the past N days. N is configured in the report settings (*Traffic stats for last, days* parameter)
- *LCR# ASR*: number of successfully sent SMS to total attempts for the past N days
- *LCR# DLRs*: number of delivered messages to successful attempts for the past N days
- *LCR# DLRt*: number of delivered messages to total attempts for the past N days

NOTE: Blocked rates are not shown in the report.

8.15 MPS per vendor (SMS)

The *MPS per vendor (SMS)* report shows the number of SMS per second that were actually sent to the vendor (the average for the period and the maximum number of SMS).

Recent runs: All reports

Reports: MPS per vendor (SMS)

User presets: Default preset [Save] [Save as...] [Delete]

Params of report "SMS: MPS per vendor"

Description: **No description**

Period from: 2018.05.31 10:00:00

Period till: 2018.05.31 11:00:00

MPS per vendor (SMS) report settings

To access the report, in the *Reports* drop-down list select *MPS per vendor (SMS)*. Specify the period and click  **Run report**.

An example of the report is shown in the figure below.

Reports ★ Report "MPS per vendor (SMS)"

Period from: **2018.05.01 00:00:00**; Period till: **2018.05.31 11:00:00**

No	Vendor	Average MPS	Peak MPS
1	AC_Car_Vnd_...	1.00	1
2	AC_Car_Vnd_...	1.00	1
3	KA_SMS_ven...	2.90	20
4	SA_Test	1.19	4

MPS per vendor (SMS) report

The report contains the following columns:

- *Vendor*
- *Average MPS*: average number of messages per second for the period
- *Peak MPS*: maximum number of messages per second

Find out more about the report in the [Alaris YouTube video](#).

8.16 Negative margin (SMS Alert)

The *Negative margin (SMS Alert)* report provides information about the margin for SMS exchange dropping below a predefined minimum during the past hour. It is similar to [Negative margin \(SMS\)](#) report - except that the latter shows more elaborate details and allows specifying a period for data collection, whereas the *Negative margin (SMS Alert)* only shows data for the past hour.

Hide obsolete reports

Categories: Administration Alert Custom Finance
 Info Rates Reference SMS
 SMS Alert SMS Stat Stats Test
 VO Custom Voice

Recent runs: All reports

Reports: Negative margin (SMS Alert)

User presets: Default preset

Params of report "SMS Alert: Negative margin"

Description: **No description**

Margin lower than: -5

Excluded client products: Selected: All

Excluded countries: Selected: All

Negative margin (SMS Alert) report settings

To access the report, in the *Categories* section check *SMS Alert*; in the *Reports* drop-down list select *Negative margin (SMS Alert)*. Specify the following report parameters:

- *Margin lower than*: the value that triggers report generation (can be positive, zero or negative)
- *Excluded client products*: select client products to be excluded from the report
- *Excluded countries*: select countries to be excluded from the report

Click  **Run report**. An example of the report is shown in the figure below.

Reports ★ Report "Negative margin (SMS Alert)"

Margin lower than: **40**; Excluded client products: **All**; Excluded countries: **All**

Nº	Hour	Product	Country	Network	Margin	Margin, %	▲ Attempts
	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask
1	2018.03.12 13:...		Nigeria	Visafone Comm...	11	100	90
2	2018.03.12 13:...	Mensajes L...	Tunisia	TunTel	6	100	692
3	2018.03.12 13:...	Brexit Telec...	United States of...	Verizon Wireless	5	100	722
4	2018.03.12 13:...	Brexit Telec...	United States of...	Sprint Spectrum...	3	100	622
5	2018.03.12 13:...	PocoDinero ...	Nigeria	Visafone Comm...	3	100	22
6	2018.03.12 13:...	Brexit Telec...	United States of...	T-Mobile USA	3	100	440
7	2018.03.12 13:...	Brexit Telec...	United States of...	United States - ...	3	100	596
8	2018.03.12 13:...		Niger	Airtel Niger	3	100	358
9	2018.03.12 13:...	Brexit Telec...	United States of...	AT&T Local	2	0	598

Negative margin (SMS Alert) report

The report contains the following columns:

- Hour
- Product
- Country
- Network
- Margin
- Margin, %
- Attempts, last hour: SMS send attempts in the past hour

8.17 Negative margin (SMS)

The *Negative margin (SMS)* report provides information about the margin for SMS exchange dropping below a predefined minimum. It is similar to [Negative margin \(SMS Alert\)](#) report but shows more detailed statistics.

Reports

Hide obsolete reports

Categories: Administration Alert Custom Finance
 Info Rates Reference SMS
 SMS Alert SMS Stat Stats Test
 VO Custom Voice

Recent runs: All reports

Reports: Negative Margin (SMS)

User presets: Default preset Save Save as... Delete

Params of report "SMS: Negative Margin"

Description: **No description**

Margin lower than: -5

From: 2020.06.03 00:00:00

Till: 2020.06.03 13:42:26

Country: Selected: All

Network: Selected: All

MCCMNC: Selected: All

filters apply to Client
 filters apply to Vendor

Carrier: Selected: All

Product: Selected: All

Manager: Selected: All

Negative margin (SMS) report settings

To access the report, in the *Categories* section check *SMS*; in the *Reports* drop-down list select *Negative margin (SMS)*. Specify the following report parameters:

- *Margin lower than*: the value that triggers report generation (can be positive, zero or negative)
- *From/till*: the statistics collection period
- *Country*
- *Network*

- *MCCMNC*
- *Filters apply to Client/Vendor*
- *Carrier*
- *Product*
- *Manager*

Click  **Run report**. An example of the report is shown in the figure below.

Reports ★ Report "Negative Margin (SMS)" (X)							
Negative margin threshold: 40; From: 2018.03.15 00:00:00; Till: 2018.03.15 11:42:55							
No	Client	Vendor	Country	Network	MCCMNC	Client's Rate	Client's Currency
	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask
1	Wizard Telecom...	Award Wieners ...	Cyprus	MTN Cyprus	280010	0.00450000000...	EUR
2	No Llamas Oy P...	Market First Wh...	Netherlands	KPN B.V.	204008	0.02250000000...	EUR
3	No Llamas Oy P...	MagusWorld Co...	Spain	MVNO Vodafone...	214025	0.0221	EUR

Negative margin (SMS) report

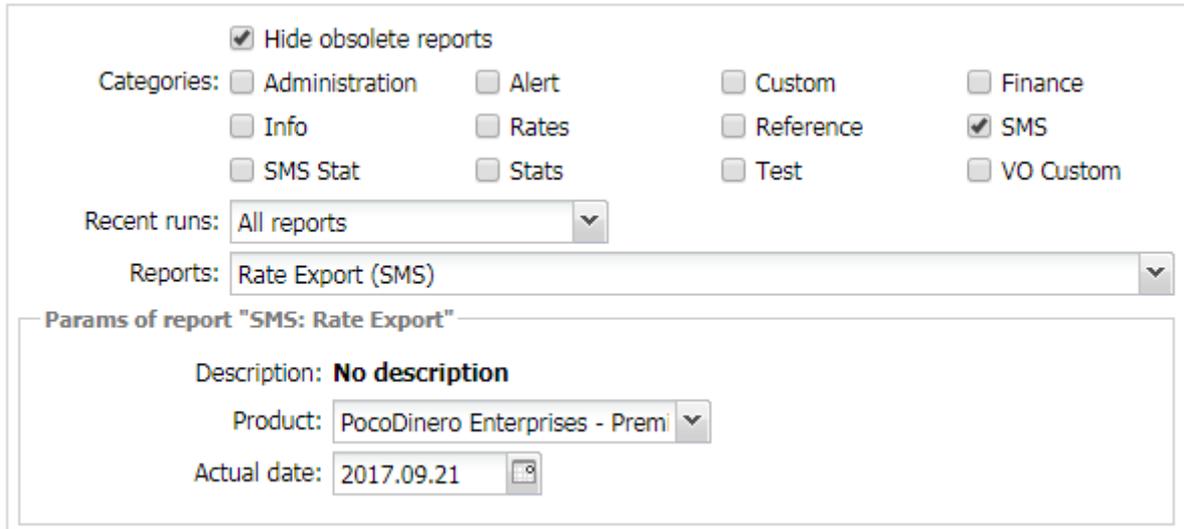
The report contains the following columns:

- *No*
- *Client*
- *Vendor*
- *Country*
- *Network*
- *MCCMNC*
- *Client's Rate*
- *Client's Currency*
- *Vendor's Rate*
- *Vendor's Currency*
- *Margin, EUR*: the margin in System currency
- *Margin (past), EUR*: the margin in System currency for the specified period less 15 minutes (for example, if you selected the period from 00:00 till 10:30, this field will show the margin from 00:00 till 10:15)
- *Count*: the count of SMS send attempts for the period
- *First/Last Event time*: the date and time of the first/last SMS send attempt

8.18 Rate export (SMS)

The *Rate export (SMS)* report enables automatic scheduled export of rates.

To access the report, in the *Categories* section check *SMS*; in the *Reports* drop-down list select *Rate export (SMS)*.



Rate export (SMS) report settings

Select the product and specify the date for which rate export must be performed.

In the right hand panel select *Is recurrent* and configure the export schedule. Click [Run report](#).

The report will be sent to partner emails configured in the *Default rate change emails* field in [Carriers\Agreements](#).

NOTE: Report parameters and schedule will not be overridden with the System upgrades.

8.19 Rate generator (SMS)

Rate generator (SMS) is a report that allows creating rates based on preconfigured base cost and markup calculation rules. This tool serves to update client rates in accordance with vendor rates and desired markup. To access the report, in the *Categories* section check *SMS*; in the *Reports* drop-down list select *Rate generator (SMS)*.

Client product: PocoDinero Enterprises - I

e.212 mask: *

Country list:

- France
- Abkhazia
- Afghanistan
- Afghanistan AT
- Albania

X price in the LCR list: 1

Period from: 2016.08.16

Period to: 2016.08.23

Volume greater than: 500

ASR higher than: 80

DLR (T) higher than:

DLR (S) higher than:

Cost base calculation type: Average rate

Markup type: Relative

Markup: 20

Use longer matches for client MCC

Vendor list type: Inclusive

Vendor list: Selected: 2

Vendor product type list: Inclusive

Vendor product types:

- Retail
- Silver
- Special
- Standard

Reset Export to Excel Export to CSV Run

Rate generator (SMS) report settings

Configure the following parameters:

- *Client product*: select a product for which MCCMNC rates will be calculated

NOTE: Check that MCCMNC rates are uploaded in the product in order for the report to be generated.

- *e.212 mask*: set the mask of MCCMNC
- *Country list*: specify the countries
- *X price in the LCR list*: define which rate from the cheapest will be taken for the calculation of rates. 1 means the cheapest rate for each MCCMNC is taken into account. 5 means the fifth

cheapest rate will be considered; the previous four cheapest vendor rates will not be taken into account for base rate calculation

- *Period from, Period to*: select the period for which statistics will be selected
- *Volume greater than*: define the traffic volume that should be sent to the vendor MCCMNC rate for it to be considered active. Inactive rates are not taken into account. Leave the field blank to consider all rates irrespective of the amount of traffic
- *ASR higher than, DLR(T) higher than, DLR(S) higher than*: the minimum values of ASR, DLR(T) and DLR(S) respectively of vendor MCCMNC rate to be considered for rate calculation. Similar to the parameter *Volume greater than*.

NOTE: The DLR(T) and DLR(S) are explained in [Terms and Acronyms](#) ¹[↑](#).

- *Cost base calculation type*: defines the calculation principle of termination base cost. Values include:
 - *Average rate*: the System takes all qualifying vendor's traffic for the period chosen above and defines average weighted cost of one SMS as the base cost of termination
 - *LCR*: the System takes the cheapest vendor rate for the MCCMNC among the vendors that qualify based on the specified parameters and have rates for the period
- *Markup type*: defines how markup is added. Values include:
 - *Relative*: adds a percentage of base cost as markup
 - *Absolute*: adds a fixed amount in System currency to the base cost
- *Use longer matches for client MCC*: check the flag if the client offers a flat rate for an MCC and the vendor offers multiple rates for the MCC. For example, the client offers 202 for Greece and the vendor has rates for 202001, 202002 etc.

NOTE: In case of multiple matches for client MCC (for example, 202001, 202002 etc., the System will use the match with the highest vendor rate.

- *Vendor list type*: *Inclusive* or *Exclusive* list of vendors to narrow down the field of searching to define the base cost of termination
- *Vendor list*: the list of vendors among which the base cost will be defined (if the *Vendor list type* is *Inclusive*) or list of vendors excluded from base cost calculation (if the *Vendor list type* is *Exclusive*)
- *Vendor product type list*: defines whether the Vendor product list is *Inclusive* or *Exclusive* (similar to *Vendor list type*)
- *Vendor product names*: defines the product types for which the base cost will be calculated

To generate the report, click  at the bottom of the left panel. An example of the report is shown below.

Reports ★ Report "Rate generator (SMS)" ✕					
Client product: Empresa Quebrada Pte. - Premium (EUR) - Client ; e.212 mask: 724* ; Country specified ; DLR (T) higher than: not specified ; DLR (S) higher than: not specified ; Cost base calc product type list: not specified					
No	Client MCCMNC	Country	Network	Client rate	Cost base
	Text mask	Text mask	Text mask	Text mask	Text mask
1	724003	Brazil	TIM Brasil	0.085	0.00070
2	724004	Brazil	TIM Brasil	0.085	0.00080
3	724010	Brazil	Vivo	0.085	0.00100
4	724011	Brazil	Vivo	0.085	0.00060
5	724024	Brazil	Oi-TNL	0.085	0.00080

Rate generator (SMS) report

8.20 Rule list (SMS)

Rule list (SMS) is a report that shows the list of routing rules configured for a specific product, and allows exporting them to an MS Excel file. To access the report, in the *Categories* section check *SMS*; in the *Reports* drop-down list select *Rule list (SMS)*.

Params of report "SMS: Rule list"

Description: **No description**

Context: ▼

Rule type: ▼

Client product: ▼

Country: ▼

MCCMNC: ▼

Rule list (SMS)

Configure the following parameters:

- *Context*
- *Rule type*
- *Client product*
- *Country*
- *MCCMNC*

To generate the report, click  at the bottom of the left panel. An example of the report is shown below.

Context: **DEFAULT**; Rule type: **Regular**; Client product: **PocoDinero Enterprises - Premium (USD) - Client**; Country: **Afghanistar**

No	Rule ID	Rule description	Rule Type	Start Date	End Date	Context	Next action
	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask
1	10001	Switch to WHO...	Regular	2014.12.22 00:...	2100.01.01 00:...	DEFAULT	Switch to context
2	10009	Switch to PRE...	Regular	2015.03.19 00:...	2100.01.01 00:...	DEFAULT	Switch to context
3	10010	Test for Alaris m...	Regular	2015.03.25 00:...	2100.01.01 00:...	DEFAULT	Huntstop
4	10018	change to Nadya	Regular	2015.11.16 00:0...	2100.01.01 00:...	DEFAULT	Switch to context
5	10031	My Retail	Regular	2018.07.17 00:...	2100.01.01 00:...	DEFAULT	Continue search

Rule list (SMS) report

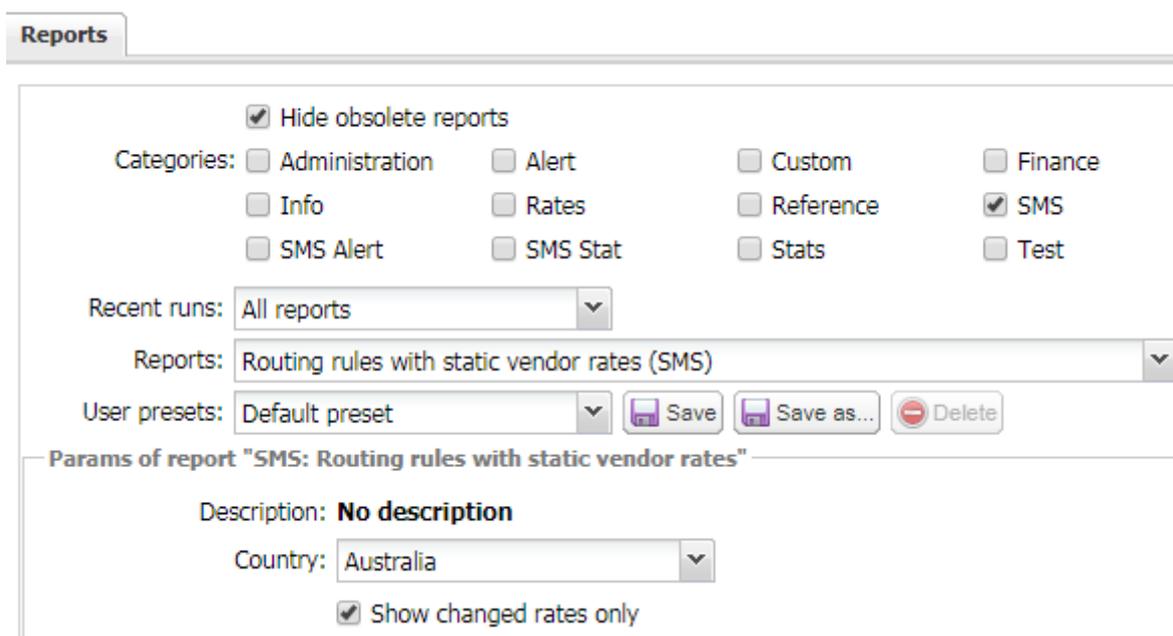
The report contains the following columns:

- *No*: number of the record in the table
- *Rule ID*
- *Rule description*
- *Rule type*
- *Start/End date*
- *Context*
- *Next action*
- *Next context*
- *Rule status*
- *Priority*
- *Probability*
- *Client products scope: All, Inclusive or Exclusive*
- *Client products list*: client rates active as of the moment of the report launch. If the rule has more than one MCCMNC and the product has more than one rate, the highest values are selected. See also the [Alaris YouTube](#) video
- *MCCMNC scope: All, Inclusive or Exclusive*
- *MCCMNC list*
- *Rule last updated on*: date of the latest update of the rule
- *Rule condition*: condition that applies to the whole rule
- *ANI/DNIS/Message pattern*
- *Choice number*
- *Choice type: Static or Dynamic*
- *Condition*: condition within a choice

- *Formula*
- *Products*: vendor rates active as of the moment of the report launch. If the rule has more than one MCCMNC and the product has more than one rate, the highest values are selected. See also the [Alaris YouTube](#) video
- *User last updated*: name of the user that performed the latest updates to the routing rule

8.21 Routing rules with static vendor rates (SMS)

The *Routing rules with static vendor rates (SMS)* report displays the first five vendors from static choices, and their current and future rates.



Routing rules with static vendor rates (SMS) report settings

To access the report, in the *Categories* section check *SMS*; in the *Reports* drop-down list select *Routing rules with static vendor rates (SMS)*. Specify the following report parameters:

- *Country*: select the country for which the report will be generated
- *Show changed rates only*: select to display only rates that were modified

Click . An example of the report is shown in the figure below.

Reports ★ Report "Routing rules with static vendor rates (SMS)"

Country: **not specified**; Show changed rates only

№	Rule ID	MCCMNC	Country	Network	Vendor product	Current rate	Future rate	New rate start d...
✕	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask
1	10000	250%	Russian Federa...	All networks				
2	10002	202	Greece	Total network	AntiSpam - Anti...			
3	10002	214%	Spain	All networks	AntiSpam - Anti...			
4	10002	202001	Greece	Cosmote	AntiSpam - Anti...			
5	10002	208%	France	All networks	AntiSpam - Anti...			
6	10002	250%	Russian Federa...	All networks	AntiSpam - Anti...			
7	10002	222%	Italy	All networks	AntiSpam - Anti...			
8	10002	250001	Russian Federa...	MTS	AntiSpam - Anti...			
9	10009	202	Greece	Total network				

Routing rules with static vendor rates (SMS) report

The report contains the following columns:

- *Rule ID*
- *MCCMNC*
- *Country*
- *Network*
- *Vendor product*
- *Current rate*
- *Future rate*
- *New rate start date*

Learn more in the [Alaris YouTube video](#).

8.22 Invoice generation delay (Finance, SMS)

The *Invoice generation delay (Finance, SMS)* report serves to provide information on all the internal charges whose generation has been postponed due to one of the following conditions:

- Underlying financial cubes are not ready
- The billing period has not ended
- The generation delay (defined by the parameter *Invoice generation delay* in [System settings\Financial module](#)^[45]) has not passed yet

Reports

Hide obsolete reports

Categories: Administration Alert Custom Finance
 Info Rates Reference SMS
 SMS Alert SMS Stat Stats Test
 VO Custom Voice

Recent runs: All reports

Reports: Invoice generation delay (Finance/SMS)

User presets: Default preset

Params of report "Finance/SMS: Invoice generation delay"

Description: **No description**

Show only current pending charges

Invoice generation delay report settings

To access the report, in the *Categories* section check *Finance*; in the *Reports* drop-down list select *Invoice generation delay (Finance, SMS)*. Select the checkbox *Show only current pending charges* to display only charges that were generated within the past 60 days. Click  **Run report**.

An example of the report is shown in the figure below.

Reports ★ Report "Invoice generation delay (Finance/SMS)"

Show only current pending charges

Nº	Internal ID	Carrier	Currency	Group index	Direction	Amount	Start date
	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask
1	67372	Alice Wondersy...	EUR	1	Vendor	49.5868000000...	2018.03.01 00:...
2	67382	Anton_test_ssl_...	USD	1	Vendor	0.86	2018.03.01 00:...
3	67255	Award Wieners	EUR	1	Vendor	709.6821	2018.03.01 00:...
4	67271	Brexit Telecom	EUR	0	Client	2823.8154	2018.03.01 00:...
5	67231	Brexit Telecom	EUR	1	Vendor	69.4068	2018.03.01 00:...
6	67379	CallMeSoon Co...	EUR	1	Vendor	10.318	2018.03.01 00:...
7	67392	Cash-a-Lot	EUR	0	Client	6.1226	2018.03.01 00:...
8	67394	Combi-Hypocal...	EUR	0	Client	0.7452000000...	2018.03.01 00:...

Invoice generation delay report

8.23 Reject traffic vendor SMS (SMS Stat)

The *Reject traffic vendor SMS (SMS Stat)* report shows vendors that reject more traffic than defined in the report parameters. To access the report, in the *Categories* section check *SMS Stat*; in the *Reports* drop-down list select *Reject traffic vendor SMS (SMS Stat)*.

Reports

Hide obsolete reports

Categories: Administration Alert Custom Finance
 Info Rates Reference SMS
 SMS Alert SMS Stat Stats Test
 VO Custom Voice

Recent runs:

Reports:

User presets:

Params of report "SMS Stat: Reject traffic vendor SMS"

Description: **No description**

Period from:

Period to:

Count:

Reject traffic vendor SMS (SMS Stat) report settings

Configure the following parameters:

- *Period from/to*: report period
- *Count*: the number of SMS send attempts to a vendor, with identical statuses and error codes to a specific MCCMNC per day. A vendor will be included in the report if this value is exceeded

Click  **Run report** to execute the report.

An example of the report is shown in the figure below.

Reports ★ Report "Reject traffic vendor SMS (SMS Stat)" (x)

Period from: **2019.02.04**; Period to: **2019.03.15**; Count: **10**

№	Date	Country	Net	MCCMNC	Vendor	Status	Error Code	Count
	Text mask	Text mask	Text mask	Text mask	A*	Text mask	Text mask	Text mask
1	2019-02-05	Russian Federa...	MTS	250001	ACQ_Vendor1	VND CHN TCP ...	1000024	12
2	2019-02-06	Russian Federa...	MegaFon	250002	AM_SMS_VENDOR	VND CHN TCP ...	1000024	20
3	2019-02-06	Russian Federa...	MegaFon	250002	Anton_smpp_V	VND CHN NOT...	2147483649	44
4	2019-02-06	Russian Federa...	MegaFon	250002	as_d34_vnd	VND CHN NOT...	2147483649	65
5	2019-02-07	Russian Federa...	MegaFon	250002	AM_SMS_VENDOR	VND CHN TCP ...	1000024	36
6	2019-02-07	Russian Federa...	MegaFon	250002	Anton_smpp_V	VND CHN NOT...	2147483649	69
7	2019-02-07	Russian Federa...	MegaFon	250002	as_d34_vnd	VND CHN NOT...	2147483649	97
8	2019-02-08	Russian Federa...	All networks	250	Anton_smpp_V	VND CHN NOT...	2147483649	18
9	2019-02-08	Russian Federa...	All networks	250	as_d34_vnd	VND CHN NOT...	2147483649	29
10	2019-02-08	Russian Federa...	MegaFon	250002	AM_SMS_VENDOR	VND CHN TCP ...	1000024	31
11	2019-02-08	Russian Federa...	MegaFon	250002	Anton_smpp_V	VND CHN NOT...	2147483649	64
12	2019-02-08	Russian Federa...	MegaFon	250002	as_d34_vnd	VND CHN NOT...	2147483649	97
13	2019-02-11	Russian Federa...	MTS	250001	ACQ_Vendor1	VND CHN TCP ...	1000024	13

Reject traffic vendor SMS (SMS Stat) report

See also the [Alaris YouTube](#) video.

8.24 Client traffic (Day) (SMS Stat)

The *Client traffic (Day) (SMS Stat)* report shows the client traffic statistics for a day. The same statistics is available in [SMS\Analytics](#)^[213]. Similar reports exist for displaying statistics for a week or month - *Client traffic (Week) (SMS Stat)* and *Client traffic (Month) (SMS Stat)* respectively.

To access the report, in the *Categories* section check *SMS Stat*; in the *Reports* drop-down list select *Client traffic (Day) (SMS Stat)*.

Hide obsolete reports

Categories: Administration Alert Custom Finance
 Info Rates Reference SMS
 SMS Alert SMS Stat Stats Test
 VO Custom Voice

Recent runs: ▼

Reports: ▼

User presets: ▼

Params of report "SMS Stat: Client traffic (Day)"

Description: **No description**

Period from:

Period to:

Product:

Client traffic (Day) (SMS Stat) report settings

Configure the following parameters:

- *Period from/to*: report period
- *Product*: the product(s) for which the statistics must be displayed in the report

Click to execute the report.

An example of the report is shown in the figure below.

Reports ★ Report "Client traffic (Day) (SMS Stat)"

Period from: 2019.03.13; Period to: 2019.03.14; Product: 1-To-Allzz - 6460_parent (RUB) - Client, 1-To-Allzz - SMS retail (USD) - Client, 1-To-Allzz - SMS retail (USD) - Client, 1-To-Allzz - SMS retail (USD) - Client

No	Date	Carrier	Country	Net	Attempts	Sent	Delivered
1	Brexit Telecom	Canada	Bell Mobility	6	6	5	0.33825
2	Brexit Telecom	Canada	Rogers Wireles...	10	10	10	0.56375
3	Brexit Telecom	Canada	TELUS Mobility	3	3	3	0.16912
4	Brexit Telecom	Canada	Videotron	1	1	0	0.05638
5	Brexit Telecom	Indonesia	Telkomsel	7	7	2	0.06945
6	Brexit Telecom	Malaysia	Celcom Axiata ...	1	1	0	0.00575
7	Brexit Telecom	Malaysia	DiGi Telecomm...	1	1	1	0.00496
8	Brexit Telecom	Malaysia	Maxis Bhd	4	4	4	0.02706

Client traffic (Day) (SMS Stat) report

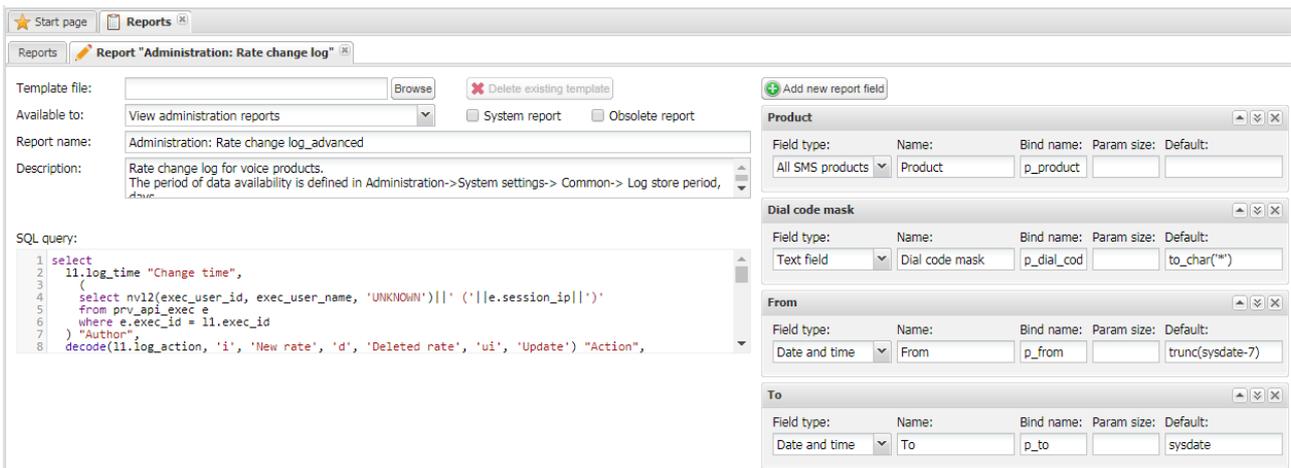
See also the [Alaris YouTube](#) video.

8.25 Report builder: creating a customized report

The System allows creation of customized reports, as well as editing the parameters of existing reports.

NOTE: To create or edit a report, the user must be able to understand and write MySQL queries.

To create a new report, open the *Reports* section and click .



The screenshot shows the 'Report "Administration: Rate change log"' configuration screen. It includes fields for 'Template file', 'Available to', 'Report name', and 'Description'. A 'SQL query' field contains a MySQL query. On the right, there are configuration panels for 'Product', 'Dial code mask', 'From', and 'To', each with 'Field type', 'Name', 'Bind name', 'Param size', and 'Default' options.

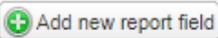
Creating a new report

Complete the following fields:

- *Template file*: an empty MS Excel file that contains the desired formatting for the new report (fonts, text alignment etc.). Click  to upload a template.

NOTE: The template file must not contain any data. Otherwise the data will be used as the header in the report. The desired formatting must be applied to as many columns as will be contained in the report. For example, if the report contains 10 columns but the formatting is only applied to 5 columns, the remaining 5 columns will be present without customized formatting.

- *Available to*: select the appropriate permissions. Users that have those permissions can view the report. The permissions are set in [Administration\Users](#) .
- *Report name*

- *Description*: arbitrary report description
- *SQL query*: write the query that will be used to generate the report
- Configure the report fields. Click . Specify the following parameters:
 - *Field type* (required): select the data type in the field
 - *Name* (required): column name
 - *Bind name* (required): name of the variable (bind) used in the SQL query

NOTE: Variables whose names start with x_ are replaced with plain text values; all other variables are interpreted as regular binds.

- *Param. size* (optional): size of the parameter (for example, number of symbols for a text field)
- *Default* (optional): default field value

Click  to save the report. It will become available for selection in the Reports list in the Reports tab sheet. Click  to save the changes and close the tab sheet. Click  to clear the form.

To edit an existing report, proceed as follows:

1. Open the *Reports* section and select the report you wish to edit.
2. Click . Modify the report parameters. Select or deselect the checkboxes *System report* and *Obsolete reports* as appropriate. When the *Obsolete report* checkbox is selected, the report is not shown in the *Reports* drop-down list.

NOTE: System reports are those that exist in the System by default. If you change a System report, all your edits will be overwritten with the new System update. To avoid this, open a System report for editing, change its name, deselect the *System report* checkbox and click the  button.

3. Once through with the edits, click  or  to save the changes and close the tab sheet.

The *Reports* tab sheet also contains the  button that serves to export the SQL query from a selected report as a zip archive. The script can be used in other reports if necessary.

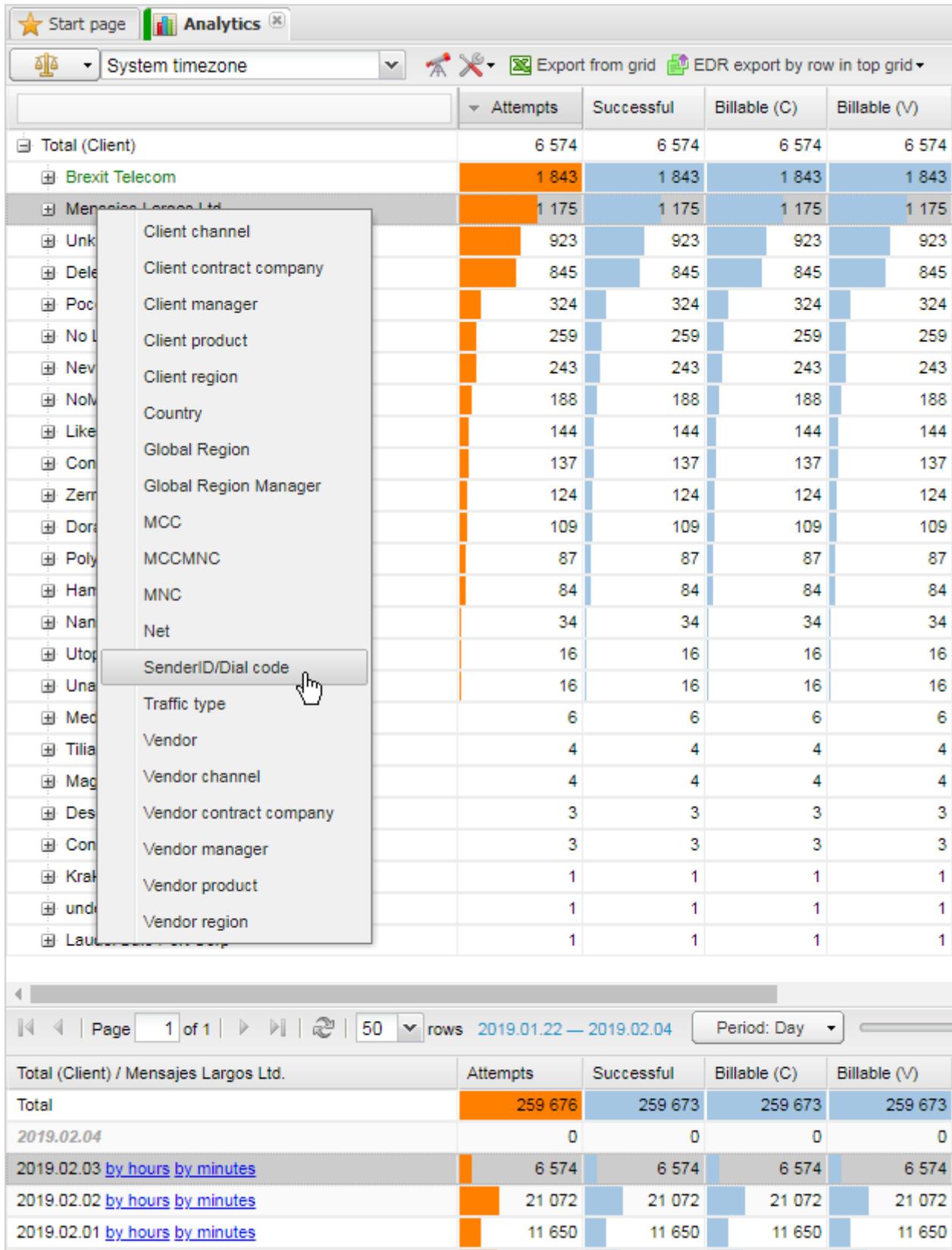
Click  to remove a report from the System.

9 SMS

9.1 Analytics

The *SMSAnalytics* page provides an easy-to-read and quick-to-draw picture of the most important statistical parameters in the System. This tool feeds on pre-calculated statistical tables (OLAP cubes) instead of raw EDR data. This approach decreases the System response time when a user selects a new aspect to display. The side effect is that the amount of available aspects is limited (mostly by server performance and free disk space). However, the limit is adjustable and all important aspects are included into the scope by default.

The page consists of two interconnected parts. The top part displays a table of performance indicators pertaining to the specified statistical aspects (a user-defined combination of business items, e.g. *Client* >> *Country* >> *Vendor*) for the period selected in the bottom part. The *Total* row shows data for all the clients or vendors of the System owner, whichever is selected.



Selecting the level of detail in the context menu

Along with parameters illustrated in the figure above, it is possible to calculate and view statistics based on the following parameters:

- *Rule ID*: the rule used to terminate the traffic (to enable the option, contact the Alaris technical support team)
- *HLR provider*: the HLR provider polled for the SMS

NOTE: By default, the parameters *Rule ID* and *HLR provider* are disabled not to affect platform performance and maintain previously established data growth rate. To enable the stats display, contact the Alaris technical support team and communicate the code BZ20486 for *Rule ID* and BZ22143 for *HLR provider*.

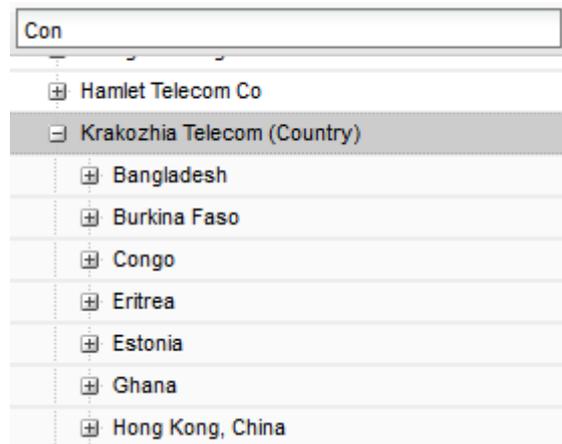
- *Country*: country as configured in [Reference books\Regions\Countries](#)^[175]. The country is determined by HLR or by the MCCMNC existing in the System. Learn more in the [Alaris YouTube video](#)

NOTE: The *Sender ID* layer displays traffic billed by the client/vendor rate with an alphanumeric dial code or a numeric dial code whose length is 5 digits or longer.

Items in the table can be sorted ascending or descending by any of the columns. When the *Analytics* page is first opened, items are sorted by the total traffic volume.

Each item with available underlying layers has the “+” sign on the left of its name. Click on the “+” sign to open the context menu and add more items to the displayed combination. To close a layer click on the “-” sign on the left of its parent object.

For example, to drill down on the client level, select a client, then choose to view its stats by country, then select a specific country and further detail it by vendor and so on as shown in the figure above.



Items filter

Items can be filtered by filling in the edit box at the top of the first column. The filter always applies to the child items (if any) of the currently selected item. For example, to display the *Congo* stats for *Krakozhia Telecom*, select *Krakozhia Telecom* in the list, in the context menu select *Country*, and enter the first few characters of the search word, for example, *Con*. To locate the item by the characters in the middle/end of the word, use the wildcards * or %, in this example *Congo* can be filtered by entering **go* or *%go*.

Carriers highlighted in green are created through the [Alaris Campaign Portal](#)^[380]. To filter such records, select the *Total* row in the table and enter *%Self-signed%* in the edit box.

Test carriers are displayed in orange font, and the *Carrier name* has the prefix [TEST]. Test carriers are those that have the *Is test* checkbox selected in [Carriers\Carriers](#)^[99].

When a user adds a new detail level to the selected aspect, the System includes the items that have stats for the combination of previously selected objects. Example: select *Client* and *Country* in the

context menu. The System will display countries to which the selected client was forwarding traffic over the periods selected in the bottom table.

	Attempts	Successful	Billable (C)	Billable (V)	Submitted	ASR, %	DLR (S)	DLR (T)
Total (Client)	6 574	6 574	6 574	6 574	6 573	100.00	81.15	81.15
Brexit Telecom	1 843	1 843	1 843	1 843	1 843	100.00	95.33	95.33
Mensajes Largos Ltd.	1 175	1 175	1 175	1 175	1 175	100.00	72.34	72.34
Unknown partner	923	923	923	923	923	100.00	61.21	61.21
Deleted partner	845	845	845	845	845	100.00	83.91	83.91
PocoDinero Enterprises	324	324	324	324	324	100.00	77.47	77.47
No Llamar Oy	259	259	259	259	259	100.00	85.33	85.33
NeverCall plc	243	243	243	243	243	100.00	79.01	79.01
NoMeGustaRio LLC	188	188	188	188	188	100.00	66.49	66.49
LikeRealDLRs LLC	144	144	144	144	144	100.00	88.88	88.88

Analytics (top table)

The top table contains information on the following parameters:

- *Attempts*: total number of attempted SMS transfers from the client side
- *Successful*: number of SMS transfers confirmed by vendors as received
- *Billable (C), Billable (V)*: number of billable SMS for clients (C) and vendors (V) as configured by the parameter SMS billing options on the [Carriers\Products](#) page.
- *Submitted*: number of SMS messages with the *submitted* status
- *ASR, %*: successful to total attempts ratio. An attempt is considered successful if a vendor accepted it for delivery (i.e. submit_sm_resp with the field "cause=0" is received in response to the client's request submit_sm)
- *DLR (S)*: delivered messages to successful attempts ratio
- *DLR (T)*: delivered messages to total attempts ratio
- *Activated*: the amount of activated SMS
- *Delivered*: messages delivered to the end user (successful delivery report is received)
- *Reported*: messages for which delivery reports have been received
- *HLR cost*: total amount spent on HLR dipping
- *HLR ported*: number of requests that were sent to ported numbers
- *HLR cached*: number of requests that were dipped earlier and were taken from cache
- *Aver. delivery delay*: average delivery delay in minutes
- *Delivered within interval 1-5*: number of messages delivered within intervals set in the parameter *Delivery interval ranges (comma-separated, seconds)* in [Administration\System settings\SMS analytics](#), whereby delivery reports are distributed between the intervals for more precise calculation of average delivery delay (ADD)
- *Segments*: the number of SMS segments that long messages are broken into
- *Act. rate (T)*: activated messages to successful messages ratio

- *Act. rate (S)*: activated messages to total attempts ratio
- *Margin*: total margin

NOTE: The cost of HLR dipping is excluded from the *Margin* field if the parameter *Deduct HLR rate from margin* (0 - no, 1 - yes) is set to 1 in [Administration\System settings\SMS routing](#)^[69]. Find out more about the feature in the [Alaris YouTube video](#).

- *Revenue*: total charge for SMS traffic associated with the selected item chain that the System owner can bill to the clients
- *Vendor cost*: total cost of SMS traffic associated with the selected item chain that the System owner must pay to the vendors
- *Margin per succ. SMS, USD*: ratio of margin divided by the number of SMS with the *successful* status
- *Margin %*: ratio of margin divided by *Revenue*
- *Aver. rate (C), Aver. Rate (V)*: average client (C) and vendor (V) rates for the selected destination(s) during the selected time interval
- *Rate (C), RATE (V)*: client (C) and vendor (V) rates that were in effect for selected destination(s) during the selected time interval. If the number of different rates involved does not exceed 3, all of them are displayed; otherwise the System will show the “...” symbols

Total (Client) / Mensajes Largos Ltd.	Attempts	Successful	Billable (C)	Billable (V)	Submitted
Total	259 676	259 673	259 673	259 673	259 601
<i>2019.02.04</i>	0	0	0	0	
<i>2019.02.03</i> by hours by minutes	6 574	6 574	6 574	6 574	6 573
<i>2019.02.02</i> by hours by minutes	21 072	21 072	21 072	21 072	21 071
<i>2019.02.01</i> by hours by minutes	11 650	11 650	11 650	11 650	11 646
<i>2019.01.31</i> by hours by minutes	20 395	20 395	20 395	20 395	20 392
<i>2019.01.30</i> by hours by minutes	25 443	25 443	25 443	25 443	25 434

Analytics (bottom table)

The bottom area presents the same performance indicators arranged by periods for the item selected in the top table. The top line always shows total values for each parameter of the selected statistical layer within the defined timeframe – e.g. if the user specifies four days in the *Timeframe selector* (see below), the *Total* line in the bottom table will show the summary for the selected four days. It is convenient when you need to see the totals for a custom period (not equal to the System defaults – hours, days etc.)

NOTE: For periods that are recalculated due to new DLRs, the date is highlighted in grey italic font. For those recalculated due to new EDR, the date is highlighted in bold grey italics. In the figure above, the top four rows have the date highlighted in bold grey italics, and the bottom row in grey italics. To view the stats recalculation progress, see the [SMS Analytical cube status \(Administration\)](#)^[186] report.

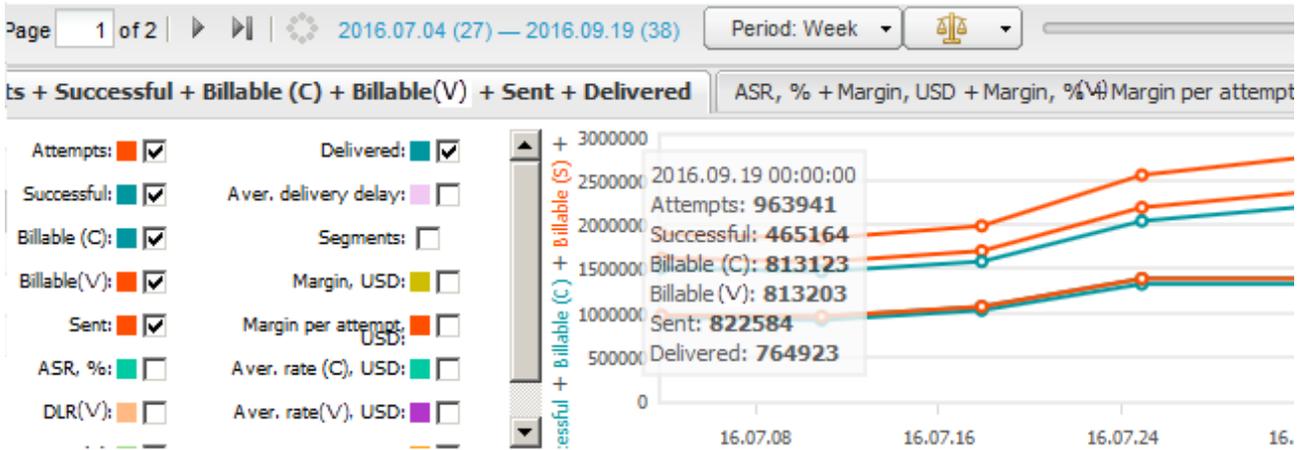


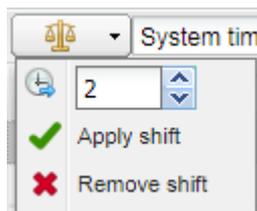
Chart view (bottom table)

Data in the bottom table can be displayed either in a table format or as a chart by switching the  *Chart/Table switch* button in the mid-page tool bar. The chart view allows creating three different profiles in separate tabs sheets. Select appropriate parameter boxes in the left panel that will appear as charts in the right panel.

The top table contains the following controls:

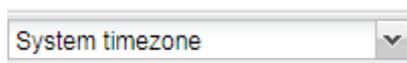
- *Offsets* : this control allows comparison of current data for some period to the same period in the past, registered a preset number of periods ago. For example, to compare the current month stats with the data of 2 months ago, select *month* in the *Period* control, enter 2 in the edit box as shown below, and click  *Apply shift*. Click  to open the chart view for more convenient data representation.

NOTE: The past data appears dimmed both in the table and chart views.



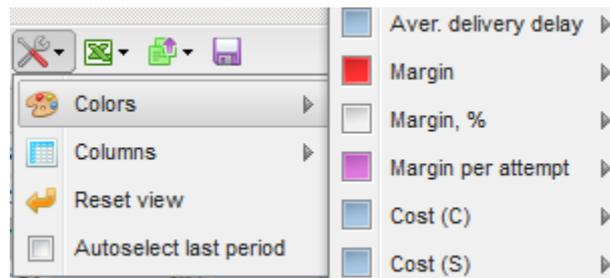
Offsets

- *System timezone*: select the timezone for display of data in the tables (available only if the selected period is *Day*)



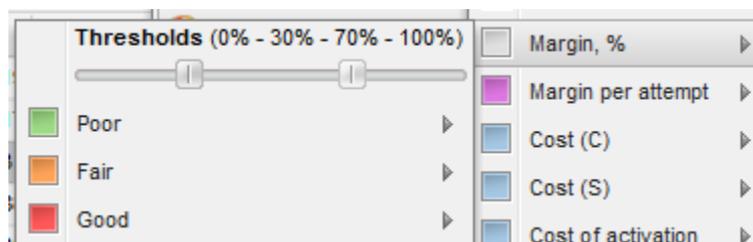
System timezone

- *View options*  contains the following parameters:



View options

- *Colors*: selection of colors for performance indicators. For the indicators *Margin, %*, *ASR*, *DLR(T)* and *DLR(S)* the control allows setting threshold values and assigning different colors to them:



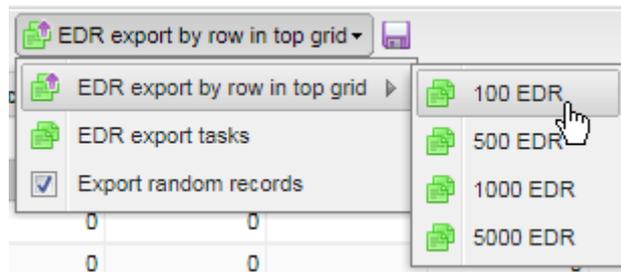
Assigning thresholds and colors

- *Columns*: selection of columns for display
- *Reset view*: reset all colors and displayed columns
- *Autoselect last period*: the flag fixes the last interval set in the timeframe selector. When the flag is checked, the interval shifts forward as time goes on. For example, if the current date is October 20, the interval is 1 - 10 October and the period set by the button  is Day, on October 21 the interval will shift to 2 - 11 October, on October 22 it will shift to 2-12 October and so on
- *Refresh in background*: when selected, the *Analytics* page is refreshed automatically when it is inactive - that is, when other tabs are open on top of it (note that with this mode on, the System works slower). When deselected, the page is only refreshed when it is open and active
- *Telescopic view* : enable the SMS telescopic mode for a selected layer. With this feature, the selected layer is calculated using more detailed cubes and delivers more recent data; however it takes more time for calculation. Learn more about this feature in [Alaris YouTube video](#).

NOTE: This button is only shown in the panel in the if the parameter *SMS statistics telescopic mode* is set to 0 in [Administration\System settings\SMS analytics](#)^[62] and the user is granted the permission *SMS analytics\Telescopic mode* in [Administration\Users](#)^[9]. Also note that button activates the Telescopic view for the selected layer only; when you select another layer, the mode is automatically deactivated.

-  *Export from grid* allows data export from the upper table to an XLS file
- The button  *EDR export by row in top grid* serves for EDR export. The *EDR export tasks* menu allows viewing export tasks, their progress and task details. The *Export random records* checkbox allows exporting a predefined number of rows selected randomly. Learn more about this feature in [Alaris YouTube video](#).

NOTE: The columns of the exported EDR file contain only the most relevant parameters. The top row of the file contains information about the data period and the timezone. For a more detailed file use the [EDR Export \(SMS\)](#) report.



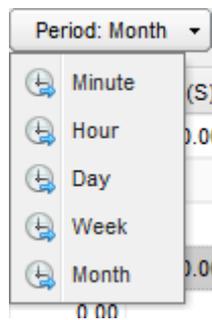
EDR export button

The bottom table contains the following controls:

- *Page navigation* : statistics in the top table will be arranged in two or more pages if the specified layer contains more than 25 items.

NOTE: Only items with non-zero data are displayed in the table.

- Refresh button 
- *Period:* timeframe breakdown defined by selecting a period from the drop-down list (*Minute, Hour, Day, Week, or Month*):

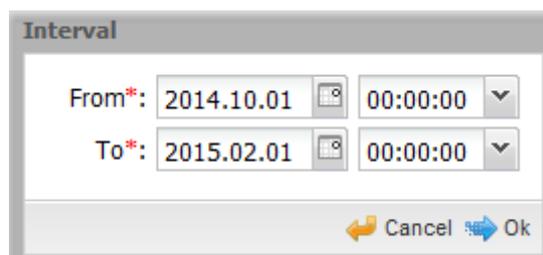


Period

- *Timeframe selector:* a tool for defining the time interval for which statistics is generated. The interval can be set either by dragging the left or right margin of the scale, or by selecting the period in the pop-up window ( pencil button). Click  to apply the timeframe:



Timeframe selector



Interval

-  **Export from grid** allows data export from the bottom table to an XLS file
- **Table/chart switch** : a switch between table and chart display formats
- **Save current state button**  saves the current view (the timeframe selector value, the period (day, month etc.) and the first selected layer of performance indicators). These settings are saved in the browser cache and are displayed when the user accesses the *SMS\Analytics* page the next time

For better visualization the length of the colored bar correlates with the parameter value. Colors for *ASR* and *Margin* parameters can be set to differentiate between *poor*, *fair* or *good* performance. Selection of columns with performance indicators (technical and commercial) can be defined individually for each user by checking *View financial details* and/or *View technical details* boxes in [Administration\Users](#)  (Analytics section).

9.2 EDR management

9.2.1 EDR export tool

The *EDR export* tool allows exporting EDR data from the System database with a number of flexible filters and options. The page consists of three panels: *Export settings*, *Task grid* and *Task details*.

Export settings

Period: from to

Timezone: system timezone
 convert timestamps

Client parameters

Products:

POI list:

MCCMNC list:

Mess. ID pattern:

Billable attempts only:

Vendor parameters

Products:

POI list:

MCCMNC list:

Mess. ID pattern:

Billable attempts only:

Important: EDR records list for the export will be prepared based on all the conditions stipulated in the task parameters joined together (logical AND).

Country list: Ref. MCCMNC list:

Net list: HLR MCCMNC list:

SMS status list:

Sender ID mask:

Dest. address mask:

Text pattern:

Message leg:

EDR fields to export:

Show last attempts only:

Only successful:

With dipped HLR only:

Host IP:

Task start time*:

Export target: Show here Export to file Send EDRs by email

Export limit:

File format:

Send EDRs to*:

CC exported file to:

Comments:

EDR types

MT

MO

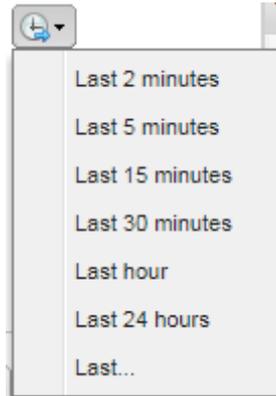
Test

Buffered

Export settings

The *Export settings* tab allows configuration of the following export parameters:

- *Period*: timeframe of the EDR export



“Show last” option

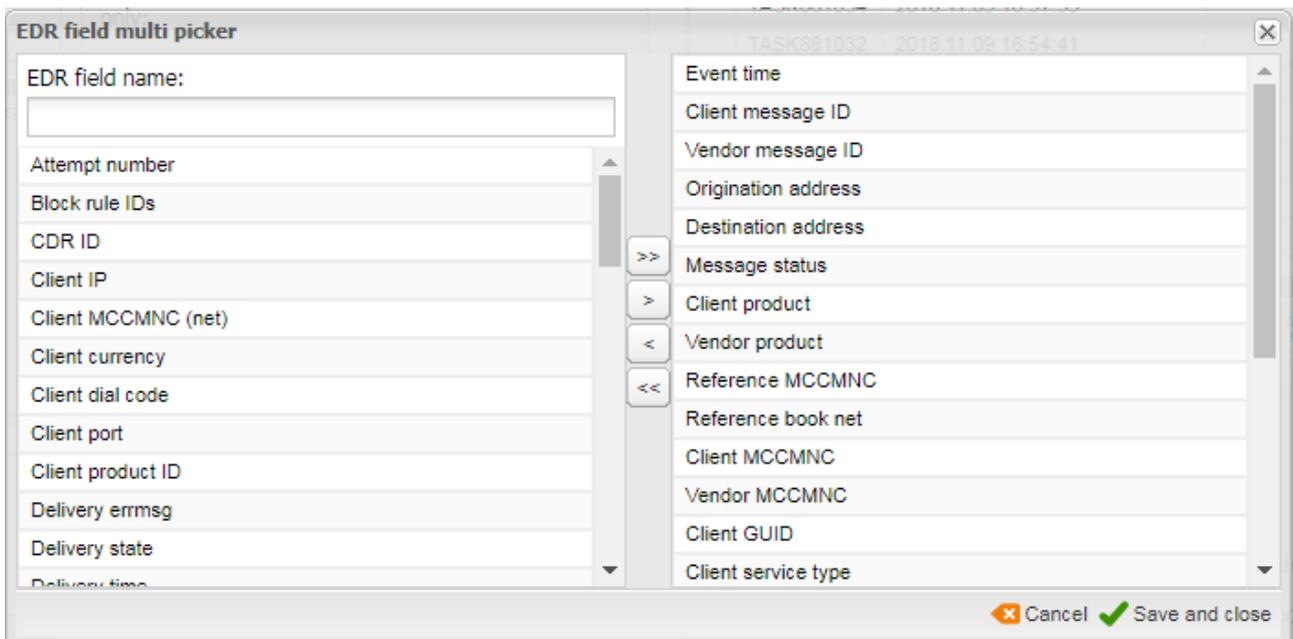
- *Show last*  button sets the export period to the last 2, 5, 15, 30 minutes, last hour, last 24 hours. The value *Last...* serves to select a custom period (minutes, hours and days) for EDR export. When selected, the *Last* parameter appears that allows selecting a customized period.

Period: from to 

Last: Minutes: Hours: Days:

Period selection in 'Show last' option

- *Timezone*: select the time zone in the drop-down list or select the *system timezone* checkbox. Select *convert timestamps* to convert timestamps to the selected timezone (available if the *system timezone* checkbox is deselected). This is helpful if you need to provide your partners with EDRs in their specific timezone.
- The set of Client/Vendor parameters allows sorting out EDRs for export – for example, all SMS terminated by one of the vendors
- *Message leg*: select the message leg from the drop-down list (*All, Client, Vendor*)



EDR field multi picker

- *EDR fields to export*: select from the EDR fields available in the System. Most field names are self explanatory. Below are a few that may need explanation:
 - *Block rule IDs*: the field is filled if no routes were found because the vendor was blocked by a block rule. If all vendors were blocked by various block rules, they all will be listed in the column. See also the [Alaris YouTube](#) video
 - *Client/Vendor MCCMNC (net)*: country and network of the MCCMNC of the client/vendor rate plan
 - *Client/Vendor login*: the client/vendor login configured in [Carriers\SMS channels](#) ⁽¹²⁰⁾
 - *Delivery delay (client)*: the difference between the receipt date of the delivery report and the receipt date of the message from the client (in seconds)
 - *Delivery delay (vendor)*: the difference between the delivery report receipt date and the send date to the vendor (in seconds)
 - *Done date*: delivery date as per deliver_sm sent by the vendor
 - *Event time*: timestamp for the event of message receipt from the client
 - *HLR net*: country and network of the MCCMNC returned by the HLR
 - *HLR response code*: the value (for example, the number status or response status) is taken from the response of some HLR providers (for more detail refer to [Appendix 4. Formulas and conditions in routing\Routing metrics\Message metrics](#) ⁽⁴³⁹⁾)
 - *Is HLR*: flag that indicates whether HLR dipping was performed (0/1)
 - *Is last*: flag that indicates the last attempt to send the SMS. For example, when the System tries to send the SMS to several vendors, the last vendor will receive *Is last = 1*, and all the others receive *Is last = 0*
 - *Reference book net*: country and network of the MCCMNC as per the System's reference book
 - *Registered delivery*: the value of the registered_delivery flag of the submit_sm packet
 - *Segment amount*: potential number of SMS parts
 - *SMS text*: text of the original SMS
 - *Translated text*: text after translation (if translation was performed). Learn more about this field in [Alaris YouTube video](#)
 - *Translation rule details*: translation rules applied to a message. The rule IDs either precede or follow the slash symbol "/", depending on whether the rule was applied before or after routing respectively. The field includes the following parameters:
 - aniTranslationsRuleId
 - dnisTranslationsRuleId
 - textTranslationsRuleId
 - aniTonTranslationsRuleId
 - aniNpiTranslationsRuleId

- dnisTonTranslationsRuleId
- dnisNpiTranslationsRuleId
- flashTranslationsRuleId
- registeredDeliveryTranslationsRuleId
- *Technical details*: technical details of the SMS (TON/NPI, status codes returned to the client or received from the vendor, the response delay from the HLR service provider etc.)
- *Vendor sent time*: timestamp for the event of sending a submit to a vendor socket
- *Country list*: select countries
- *Net list*: select networks
- *Ref. MCCMNC list*: MCCMNC from the System's reference book
- *HLR MCCMNC list*: MCCMNC received from the HLR
- *SMS status list*: select SMS statuses to be exported
- *Sender ID mask*
- *Dest. address mask*
- *Text pattern*: text of the SMS (supports regular expressions and wildcards; when neither is employed, case insensitive match is applied)

NOTE: The fields *Sender ID mask*, *Dest. address mask*, *Mess. ID pattern* and *Text pattern* support regular expressions. The expression must start with ^ and end with \$ (the symbols signify the start and end of the expression respectively). For example, to find all occurrences of the combination "12345" use the following expression: ^%12345%\$ or ^*12345*\$. Other examples: ^7910000000|12345\$ (exact match search of either 7910000000 or 12345); ^12345.+ (a string starting with 12345 followed by at least one symbol). Find out more about the feature in the [Alaris YouTube video](#).

- *Message leg*: select *All*, *Client* or *Vendor*
- *Show last attempts only*: when selected, only the last SMS send attempts will be exported. See also the [Alaris YouTube](#) video
- *Only successful*: select the checkbox to export only successful SMS
- *With dipped HLR only*: select the checkbox to export only SMS for which the routing module made a successful request to the HLR service
- *Host IP*: allows filtering traffic by a specific SMS switch during export. The field comes instrumental when the System employs more than one SMS switch with different IP addresses.
- *Task start time*: export task start time
- *Export target*:
 - *Show here*: export results are displayed in the web interface. Total number of displayed EDRs is limited by the *Export limit* parameter - up to 1000 records.
 - *Export to file*: export results are downloaded from the web interface as a csv-file
 - *Send EDRs by e-mail*: export results are sent as an attachment by the e-mail indicated in the

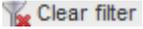
Send EDRs to field (several comma-separated addresses may be indicated)

- *Export limit*: the maximum number of exported EDRs
- *File format* active when *Export to file* or *Send EDRs by Email* is selected: the export format (CSV or Excel)
- *Send EDRs to*: email to send the exported EDRs
- *EDR types*: the available values are *MT* (mobile termination), *MO* (mobile origination), *Test*, *Buffered*
- *CC exported file to* (active when *Export target* is *Send EDRs by email*): set comma-separated emails for sending a copy of the exported files (find out more in the [Alaris YouTube video](#))

The *Presets* toolbar in the bottom of the page enables the user to create, upload and delete the pre-set export templates:



Presets toolbar

When through with defining the parameters, click  **Export** to start the task or  **Clear filter** to discard the settings.

Tasks grid						
Task ID	Job created	Comments	Status	Details	User name	
	$-\infty \leq X \leq \infty$		All		All	
TASK883538	2018.11.13 13:26:30		ready	view	mo	
TASK883536	2018.11.13 13:26:06		aborted		mo	
TASK881052	2018.11.09 19:16:28		ready	downl...	gv	
TASK881050	2018.11.09 18:18:10		ready	view	ac	
TASK881048	2018.11.09 17:05:25		ready	view	ac	

Tasks grid

The *Task grid* displays the list of recent EDR export tasks with the following information:

- *Task ID*: internal identification number of the export task
- *Job created*: date and time of the task creation
- *Comments*: the content of the *Comment* field if it was filled when a task was created. If the field was left empty, but a user preset was applied, the System displays the name of the preset. If both the field was filled and the preset used, the column will contain the value manually specified by the user during export. See also the [Alaris YouTube video](#)
- *Status*: status of the task. Possible values:
 - *in progress* (with the progress percentage specified)
 - *aborted* (if terminated manually by the operator)
 - *ready*
 - *error*

- *Details*: this column can contain:
 - a link to the export results window, if *Export target: Show here* is selected
 - a link to the file download, if *Export target: Export to file/Send EDRs by email* is selected
 - error description, if any error occurred during the EDR export
- *User name*: name of the user that initiated the procedure

Export settings						
Result: TASK158214 ✕						
CDR Id	Incoming switch...	Connect time	Disconnect time	Call duration	Disconne...	Attempt n...
015aaa743b5b6216231a2e4da57ec...	mvtspro_av	2018.05.11 05:43:27	2018.05.11 05:43:27	0	17	0
0609691be7f68d0db654cd6925c77...	mvtspro_av	2018.05.11 05:43:36	2018.05.11 05:43:36	0	34	0
0cfb0615849ce92bcf19df1f7d2c848c	mvtspro_av	2018.05.11 05:43:40	2018.05.11 05:43:40	0	17	0
110ec5e4a1b1cf23b4a3a80aef8d5f0	mvtspro_av	2018.05.11 05:43:35	2018.05.11 05:43:35	0	34	0
13643991121ac90202e13befe7dbb...	mvtspro_av	2018.05.11 05:43:50	2018.05.11 05:43:50	0	34	0
189dc7c4dec56b41253f6f6b450147d5	mvtspro_av	2018.05.11 05:44:15	2018.05.11 05:44:15	0	34	0
1caa1535af65415f9c57ad22feb5e278	mvtspro_av	2018.05.11 05:40:59	2018.05.11 05:43:10	131.744	16	0
1e1ff574527520eb18111d20e8e0d959	mvtspro_av	2018.05.11 05:43:58	2018.05.11 05:43:58	0	17	0
230f6f6a086de42285e395ac70594a86	mvtspro_av	2018.05.11 05:41:51	2018.05.11 05:41:51	0	1	0
2379c12fbcf125081c07b15aae384c98	mvtspro_av	2018.05.11 05:44:19	2018.05.11 05:44:19	0	1	0
23e95fd431f0b07714ea509888a532dc	mvtspro_av	2018.05.11 05:43:33	2018.05.11 05:43:33	0	34	0
2406238987006ab972c5f33127acf8aa	mvtspro_av	2018.05.11 05:43:21	2018.05.11 05:43:21	0	1	0

Export results view

The *Export results* view contains the  button that serves to export the results to an MS Excel file.

Click the  **Restart export** button to run an export task again with the same export settings, which are displayed in the *Task details* view.

Page 1 of 1 | 200 rows | Restart export

Task details

Period: **From 2017.03.01 00:00:00 to 2017.03.30 11:00:00**

Timezone: **system timezone**

Client leg	Vendor leg
Products: Selected: 2	Products: Selected: All
POI list: Selected: All	POI list: Selected: All
MCCMNC list: Selected: All	MCCMNC list: Selected: All
Mess. ID pattern: ---	Mess. ID pattern: ---
Billable attempts only: No	Billable attempts only: No

EDR fields: Selected: 29

Country list: Selected: All

Net list: Selected: All

SMS status list: Selected: All

Only successful: **No**

With dipped HLR only: **No**

Export target: **interface**

Limit: **100**

Task details

9.2.2 EDR reconciliation

In case of a dispute, the *EDR reconciliation* tool performs verification of the EDR data stored in the System database against a partner version of EDRs (received as a CSV file) for supposedly the same scope of traffic. During comparison, the System takes into account the difference in the time settings between two EDR versions (time zones and difference in the System time). The System tries to find a match for every record having in mind the discovered time differences (which can vary within the compared interval).

The *SMS\EDR Management\EDR reconciliation* page comprises three parts: *Recent task list* showing the table of recent reconciliations, *Task details* containing the parameters of a selected task and *Reconciliation summary* displaying the result of the comparison.

Recent task list

Task ID	Status	Job created	Period	Product list
TASK779758	ready	2018.08.20 18:26:49	2018.08.13 00:00:00 - 2018.08.20 00:00:00...	1-To-Allzz -
TASK779756	ready	2018.08.20 18:24:57	2018.08.13 00:00:00 - 2018.08.20 00:00:00...	1-To-Allzz -
TASK779754	ready	2018.08.20 18:23:42	2018.08.13 00:00:00 - 2018.08.20 00:00:00...	1-To-Allzz -
TASK777400	ready	2018.08.20 08:14:09	2018.08.19 07:49:39 - 2018.08.20 07:49:39...	KA_retail - I
TASK777378	ready	2018.08.20 07:51:24	2018.08.19 07:49:39 - 2018.08.20 07:49:39...	KA_retail - I

Recent task list

- *Task ID*: internal identification number of the reconciliation task
- *Status*: status of the task. Possible values:
 - *in progress* (with the progress percentage specified)
 - *aborted* (if terminated manually by the operator)
 - *ready*
 - *error*
- *Job created*: date and time of job creation
- *Period*: reconciled period
- *Product list*: reconciled products
- *Details*: shows that the ID if its status task is *ready*, contains the *Abort task*  button if the task is in progress or the error message if the task was terminated with error
- *User name*: name of the user that initiated the procedure

EDR reconciliation tasks are time-limited: if a task lasts longer than six hours, it stops with recommendation to change the query parameters.

Once a task in the *Recent task list* is selected, the information on it appears in the *Task details* and the *Reconciliation summary* panels.

The *Task details* window contains information about the parameters of reconciliation.

Task details	
Direction:	Client
Product list:	<input type="button" value="Selected: 1"/>
Country:	---
Net:	---
MCCMNC list:	<input type="button" value="Selected: All"/>
Period from:	2016.03.01 00:00:00
Period to:	2016.03.02 00:00:00
File name:	SMS_EDR_Export_20160316_011447.csv
Start row:	2
Date format:	YYYY.MM.DD HH24:MI:SS
Time delta:	10
Time offset:	00:00:00

Task details (EDR reconciliation)

Click the  **Restart reconciliation** button to restart the selected task with the same previously configured settings.

Reconciliation summary			
Matching type	EDR count	Owner cost	Partner cost
Partner EDR found only		28	-
Owner EDR found only		13	0.06
Same		1 761	45.65
Total		1 802	45.71

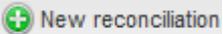
Reconciliation summary

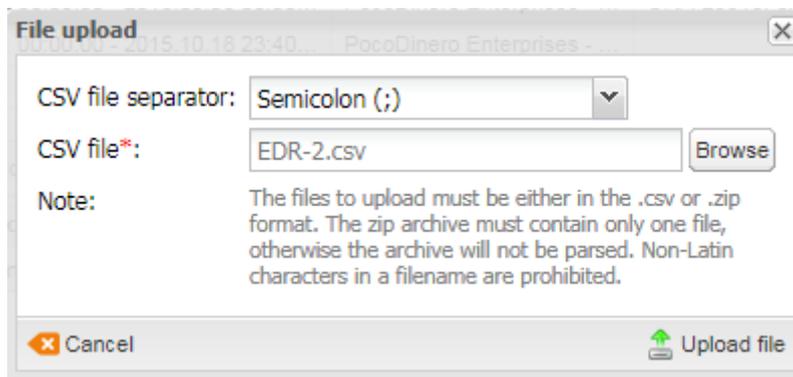
The *Reconciliation summary* table displays the list of discovered matches and mismatches with the following information:

- *Matching type*: the EDR records grouped by type of discrepancy. Click on the links to view the records. Possible values include:
 - *Partner EDR found only*: records found only in the partner EDR file
 - *Owner EDR found only*: records found only in the System's EDR file
 - *MCCMNC mismatch*
 - *Message ID mismatch*
 - *Rate mismatch*
 - *Submit time mismatch*: the submit (message receipt) time by the System owner is not the same in the two files
 - *Same*: identical records in both files
 - *Total*: the total number of records

NOTE: The most frequent discrepancies are different MCCMNC and cost.

- *Owner EDR count, Partner EDR count*: the number of EDRs of each type
- *Owner cost*: cost for the System owner
- *Partner cost*: cost for the partner

To start a new reconciliation task click the  button at the bottom of the *Recent task list*.



The image shows a 'File upload' dialog box with the following fields and controls:

- CSV file separator:** A dropdown menu currently set to 'Semicolon (;)'.
- CSV file*:** A text input field containing 'EDR-2.csv' and a 'Browse' button to the right.
- Note:** A text area containing the instruction: 'The files to upload must be either in the .csv or .zip format. The zip archive must contain only one file, otherwise the archive will not be parsed. Non-Latin characters in a filename are prohibited.'
- Buttons:** 'Cancel' (with a close icon) and 'Upload file' (with an upload icon).

File upload

In the file upload dialog select the CSV file separator and CSV file.

NOTE: The accepted file formats are .csv and .zip (the archive must contain a single file).

Click  Upload file to open the file parsing page.

NOTE: If opening the page takes longer than ten minutes, the System aborts the operation. It means that there may be a problem with the file.

The page contains two panels - the file preview and the *Settings* panel.

Preview of "EDR3.csv"

	Submit time	A-number	B-number	Column 4	
[1]	OWNER_SUBMIT_TIME	OWNER_CALLING	OWNER_CALLED	OWNER_E21	TE
2	01.03.2016 23:59	ECOBANK	2,42067E+11	629010	
3	01.03.2016 23:58	ECOBANK	2,42066E+11	629010	
4	01.03.2016 23:58	Viber	6,42102E+11	530001	
5	01.03.2016 23:57	ECOBANK	2,42067E+11	629010	
6	01.03.2016 23:57	ECOBANK	2,42069E+11	629010	
7	01.03.2016 23:56	ECOBANK	2,42069E+11	629010	.0002

- A-number
- B-number
- MCCMNC
- Message ID
- Rate
- Submit time

Preview window

In the file preview define the column types by clicking on the headers of the table, so that the System knows where to take MCCMNC codes, A- and B-numbers etc. The available column types are shown in the figure above.

Settings panel >>

Presets: ✓ | 📄 | ✗

Start row: fix row

Direction: ▼

Product list: ✎

Country: ▼

Net: ▼

MCCMNC: ✎

Period from*: ▼

Period to*: ▼

compare only successful EDRs

Date format*: ▼

Submit time delta: seconds

⌚ Time offset: ▼

Settings panel

Once the column headers are defined, configure the parameters in the *Settings* panel:

- *Start row*: define the first row with the EDR data, so that the System ignores everything that is above the EDR table in the file. Check *fix row* to prevent the *Start row* value from changing when you navigate between rows in the preview

- *Direction*
- *Product list*
- *Country*
- *Net: network name*
- *MCCMNC*
- *Period from/Period to: set the period*
- *compare only successful EDRs: check the flag to include only EDR for successfully transmitted SMS*
- *Date format: format of the dates in the EDR file. If required, set up a custom format in the bottom field of the drop-down list of available formats*

Date format*:

Connect/Disconnect:

Time offset:

MM.DD.YY HH24:MI:SS

MM.DD.YYYY HH24:MI:SS

YYYY.MM.DD HH24:MI:SS

YYYY.MM.DD HH24:MI:SS

Date format

- *Submit time delta (seconds):* allowed time slot for better identification of the EDR pair (in case the time on the System and partner servers is not fully synchronized)
- *Time offset:* sets the max EDR time difference between your server and the partner's server, so that the EDRs are matched with the appropriate time adjustment

Click  to launch reconciliation. Click  to discard the settings and return to the previous page.

The EDR reconciliation settings can be saved as a preset. Presets allow quick access to preconfigured settings. Type the new preset name in the *Presets* field at the top of the panel or select an existing one from the drop-down list and click . To open a preset, select it in the drop-down list and click .

Presets:

Presets toolbar

9.2.3 EDR rerating

The *SMS\EDR Management\EDR Rerating* page serves for revaluation of previously generated SMS event charges in cases when certain data (rates, MCCs, carrier interconnect information etc.) affecting such valuations in the past is altered or added. This mechanism allows keeping statistics and billing data up-to-date. The page is divided into three parts: *Tasks*, *Recalculation settings* and *Task details*.

The System performs automatic EDR recalculation every night for a period up to 30 days, in case any backward changes were made in the rate data.

NOTE: The storage period of EDRs for automatic recalculation is limited by a window of 10,000 records or the number of days set in the parameter *Log store period, days* ([Administration\System settings\Common](#)^[35]).

The *Recalculation settings* panel contains parameters for manual recalculation.

NOTE: Rerating operations can be launched only if the permission *View and edit all data (except System owner parent rates)* is granted to the user. For mode detail about roles, see [Administration\Users](#)^[9].

9.2.3.1 Recalculation settings

The *Recalculation settings* panel enables selecting items that need to be adjusted by applying the following filters:

Recalculation settings

Period*: from to

Client leg	Vendor leg	HLR leg
Products: <input type="text" value="Selected: All"/>	Products: <input type="text" value="Selected: All"/>	Products: <input type="text" value="Selected: All"/>
IP addresses: <input type="text" value="Selected: All"/>	IP addresses: <input type="text" value="Selected: All"/>	

MCC:

SMS net:

MCCMNC:

Task start time:

Recalculation settings

- *Period*: time interval within which charges are recalculated
- *Products*: name of the product to be revalued, selected from clients' (*Client leg*), vendors' (*Vendor leg*) or HLR (HLR leg) products in the *Products* multi picker window opened by the  button (see also the [Alaris YouTube](#) video):

Product multi picker

Direction: Region: Product description: Product name:

ALARIS TEST - LCR (USD) - Client
ALARIS TEST - Premium (USD) - Client
Alarislabs_NEW - SMS retail (EUR) - Client
Alice Wondersystems - Wholesale (EUR) - Client
Alternia Telecom - Contrl - Premium (EUR) - Client
Alternia Telecom - Contrl - Wholesale (EUR) - Client
Amber Telecom - Gem - LCR (USD) - Client
Ancient Communications - Gold (EUR) - Client
Anton - LCR (USD) - Client
Anton - LCR (EUR) - Client
Atlantic Credit & Finance - LCR (EUR) - Client
Award Winners - Wholesale (EUR) - Client

Include undefined

Product multi picker

- Select the *Include undefined* check box to recalculate undefined messages that may appear in the System due to mal-configuration, junk traffic etc.

NOTE: If rerating is performed after an SMS channel was accidentally removed, the messages within the product will be marked as undefined. To fix this, restore the SMS channel and perform rerating with the *Include undefined* checkbox selected.

- *IP addresses:* IP-address(s) for the selected Product. Open the *SMS IP addresses* multi picker window by the  button. Select IP addresses from the list in the left section of the window, or add them manually in the edit field at the bottom of the right section and click the  button.

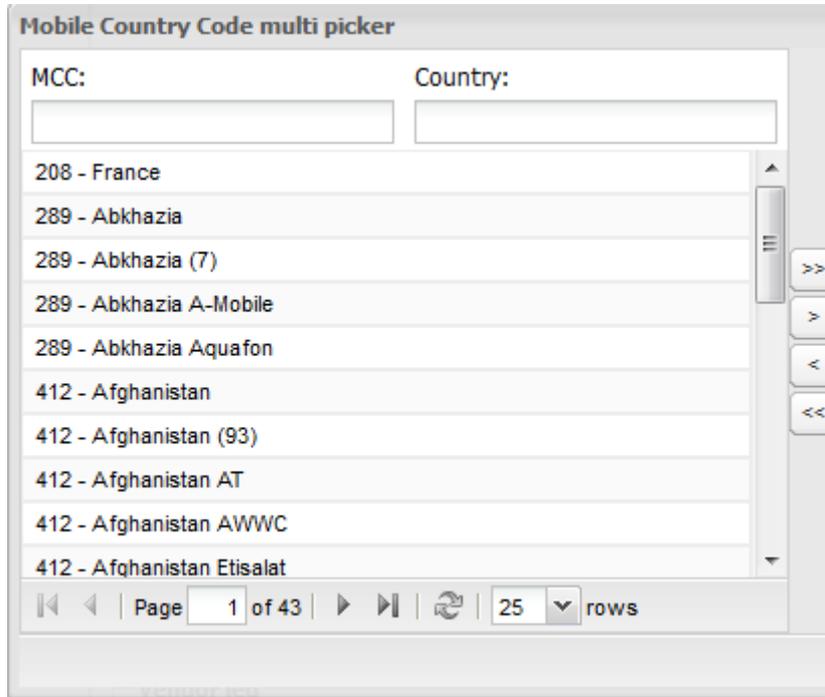
SMS IP addresses multi picker

IP-address:

Page 1 of 1 | 25 rows

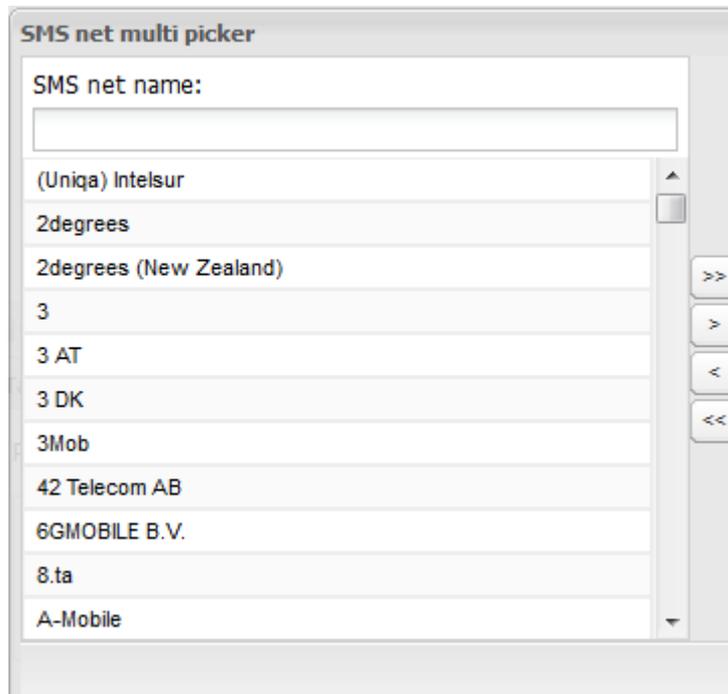
SMS IP addresses multi picker

- **MCC:** target Mobile Country Codes. Open the *Mobile Country Code* multi picker window by the  button. Select code(s) from the list in the left section of the window. Search them by specifying either MCC or Country



Mobile Country Code multi picker

- **SMS net:** operator mobile network(s). Open the *SMS net multi picker* window by the  button. Select the SMS net name from the list in the left section of the window. Search them by specifying the network name in the edit box



SMS net multi picker

- **MCCMNC:** use the MCCMNC multi picker to select appropriate values

- *Task start time*: this option allows scheduling the recalculation task for any convenient time, for example postponing it till the next System off-peak interval to avoid excessive load on the System

When through with defining the parameters, click  **Run** to start recalculation or  **Reset** to discard the settings.

NOTE: After recalculation, all statistics and analytics will become outdated, and the affected data may be displayed as zero values in tables and charts. The rerating triggers automatic recalculation of OLAP cubes after some time, depending on the current System load. To see when recalculation will be performed, go to [SMS Analytical cube status \(Administration\)](#)^[186] and check the *Recalculation status* column.

Period: **Week**

No	Partition period t...	Partition date	State	Last change	Row count	New EDR count...
	Text mask	Text mask	Text mask	Text mask	Text mask	Text mask
1	WEEK	2016.09.26 00:0...	Must be recalculated	2016.09.19 00:0...	0	
2	WEEK	2016.09.19 00:0...	Must be recalculated	2016.09.21 14:2...	72843	4481
3	WEEK	2016.09.12 00:0...	Ready	2016.09.19 02:2...	79346	0
4	WEEK	2016.09.05 00:0...	Ready	2016.09.12 02:2...	79525	0

Recalculation status report

NOTE: After EDR rerating, perform recalculation of invoices for the same period to bring the invoicing information up to date. Refer to [Finance\Invoices](#)^[142] for instructions.

9.2.3.2 Tasks

The Tasks table displays a list of recent EDR recalculation tasks (both automatic and manual) with the following information:

Tasks			
Job created	Client products	Vendor products	Period
 $-\infty \leq X \leq \infty$	All	All	
2015.04.09 17:35:29	All	All	2015.01.01 00:00:00 - 2015....
2015.04.09 16:47:50	All	All	2015.03.01 00:00:00 - 2015....
2015.04.09 16:30:08	All	All	2015.04.01 00:00:00 - 2015....

Tasks

- *Task ID*
- *Job created*: date and time of the task creation
- *Client products*
- *Vendor products*
- *Period*
- *Status*: status of the task. Possible values include:
 - *in progress* (with the progress percentage specified)
 - *scheduled*: scheduled task waiting to be run

- *pending*: automatic task waiting to be run. Every hour the System checks for rate changes and if any are found, it creates a recalculation task scheduled for 1 a.m. All such tasks have the pending status. If you need to update the information sooner, start the task manually by the  button
- *aborted* (if terminated manually by the operator)
- *ready*
- *error*
- *Details*: shows that the task is *ready* or contains the *Abort task*  button if the task is in progress
- *User name*: name of the user that initiated the task

Any task can be recalculated with the previously selected settings reentered automatically. Select the required task and click the  *Restart recalculation* button located under the *Tasks* table.

9.2.3.3 Task details

The *Task details* table provides a quick overview of major parameters for the task selected in the *Tasks* table:

- *Period*: period for EDR recalculation
- *Product (client leg/vendor leg)*: product for EDR recalculation
- *IP addresses (client leg/vendor leg)*: IP addresses for EDR recalculation
- *MCC*
- *SMS net*
- *MCCMNC*

It also contains the *Statistics* table that shows the data on EDRs affected by recalculation. Click  *Details by product* at the bottom of the table to export the table to MS Excel.

Task details	
Period:	From 2016.09.01 00:00:00 to 2016.09.19 14:00:00
Client leg	
Product:	<input type="button" value="Selected: 1"/>
IP addresses:	<input type="button" value="Selected: 3"/>
Vendor leg	
Product:	<input type="button" value="Selected: 1"/>
IP addresses:	<input type="button" value="Selected: All"/>
MCC:	<input type="button" value="Selected: All"/>
SMS net:	<input type="button" value="Selected: All"/>
MCCMNC:	<input type="button" value="Selected: All"/>

Task details

9.2.4 EDR masking

The *SMS\EDR management\EDR masking* section allows creating scheduled tasks to remove the text of SMS messages based on the telephone number, and to mask the destination address in EDRs. The interface is designed in compliance with the General Data Protection Regulation (GDPR) that serves to protect the security of private data. Based on the law, subscribers can request carriers to clear their data: that is, remove the text of messages and partly conceal the telephone number. Normally, such requests are very rare.

EDR masking tasks						
Task created	Task updated	List of dest. numbers	Period	Task status	Details	
2019.08.22 12:23:34	2019.08.22 12:23:34	7910123456	2019.07.22 12:00:00 - 2019.08.22 12:00:00	scheduled	■	
2019.06.20 11:48:20	2019.06.20 11:48:44	79200200200	2019.05.20 11:00:00 - 2019.06.20 11:55:00	ready	Task completed	
2019.06.20 11:48:02	2019.06.20 11:48:44	792002002001	2019.05.20 11:00:00 - 2019.06.20 11:50:00	ready	Task completed	
2019.06.20 11:46:34	2019.06.20 11:47:40	792002002001	2019.05.20 11:00:00 - 2019.06.20 11:50:00	ready	Task completed	
2019.06.20 11:45:48	2019.06.20 11:46:00	79200200200	2019.05.20 11:00:00 - 2019.06.20 11:45:00	ready	Task completed	
2019.06.20 11:44:43	2019.06.20 11:45:09	79200200200	2019.05.20 11:00:00 - 2019.06.20 11:45:00	aborted		
2019.06.20 11:42:36	2019.06.20 11:42:47	79200200200	2019.05.20 11:00:00 - 2019.06.20 11:00:00	aborted		
2019.06.20 11:34:28	2019.06.20 11:35:05	793003003020	2019.05.20 11:00:00 - 2019.06.20 11:15:00	ready	Task completed	
2019.06.20 11:32:50	2019.06.20 11:35:05	79300300300 79300300301 793003003003 79300300304 79300600600 ...	2019.05.20 11:00:00 - 2019.06.20 11:00:00	ready	Task completed	

Page 1 of 1 | 200 rows | New task | Restart task | Edit task

EDR masking tasks

The page displays the list of masking tasks.

New task 2019.05.19 10:00:00 - 2019.06.19 10:45:00 ready Task completed

Important: Once the task is complete, all affected data (part of the number and message text) will be lost without possibility to restore.

Dest. numbers*:

Period: from to

New task

Click **New task** at the bottom toolbar to create a new task. In the window that appears specify the following:

- *Dest. numbers*: a comma-separated list of destination numbers. The message text sent to these numbers will be removed permanently; the last five digits of each number will be replaced with asterisk (*) symbols
- *Period*: period for which the data will be masked, starting from the desired date and time to the current date and time

Click **Run** to schedule the task. Tasks are executed once a day at the time specified in an internal parameter.

NOTE: The user can view and change the task execution time at [Administration\System jobs](#) ³⁴.

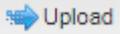
Newly created tasks have the *Scheduled* value in the *Task status* column. Scheduled tasks can be edited ( button at the bottom of the page) or canceled by clicking  in the *Details* column. In the latter case the task status will change to *aborted*.

Additionally, any task can be restarted by using the  button.

9.3 Rates

Efficient rate processing is a key factor defining the overall efficiency of the company business processes. The System owner has to import multiple vendor ratesheets daily, perform analysis of partner rates, create client products etc. The System offers a set of powerful and convenient tools to cope with the rate management tasks.

9.3.1 Auto rate import

Auto rate import allows creating rules that are used for automatic import of rate sheets sent to a predefined email address or uploaded in the System using the  button on the [SMS\Rates\Rate import](#) page.

NOTE: Data in this section is displayed only if the user has the appropriate permissions (*View own accounts only*, *View own contract companies* etc.) Permissions are configured in [Administration\Users](#). Find out more about the feature in the [Alaris YouTube video](#).

To configure automatic rate sheet import:

- Indicate error types that will prevent auto import
- Create an auto import rule
- Test the rule
- Activate the rule

The *SMS\Rates\Auto rate import* section comprises two tab sheets: *Auto import rules* and *Critical errors*.

Auto import rules		Error type levels	
ID	Carrier	Product	Masks
	All	All	
10009	China Mobile	Premium SMS (USD) - Vendor	
10005	Empresa Quebrada Pte.	Premium (EUR) - Vendor	File name: *Premium* Mail from: *@empresaquebrada.es
10011	Ilya_Vendor	Premium (USD) - Vendor	
10006	PocoDinero Enterprises	Wholesale (EUR) - Vendor	Mail from: rates@pocodinero.com Mail subject: *wholesale*
10007	PocoDinero Enterprises	Wholesale (EUR) - Vendor	File name: *wholesale* Mail from: *pocodinero* Mail to: *moremoney*

Auto import rules

Critical errors tab sheet

Open the *Error type levels* tab sheet to define errors critical for import.

Auto import rules		Error type levels	
Group name	Step	Error types	
Text mask	All	All	
Rate increase period notification violated	Import	Rate increase period notification violated	
e.212 code not numeric	Parsing	e.212 code not numeric	
Rate is empty - closing rate	Parsing	Rate is empty - closing rate	
Effective from parsing error	Parsing	Effective from parsing error	
Rate increase threshold exceeded	Import	Rate increase threshold exceeded (more than 50%)	
Negative rate	Parsing	Negative rate	
e.212 uniqueness violated	Parsing	e.212 uniqueness violated	
Rate is empty	Parsing	Rate is empty	
Rate parsing error	Parsing	Rate parsing error	

Add		Edit	
Group name*:	e.212 code not numeric		
Step:	Parsing		
Error types*:	<input type="checkbox"/> Country dial code not numeric <input type="checkbox"/> Crossing rates <input type="checkbox"/> Data in not supported code page <input type="checkbox"/> Default effective from date is used <input type="checkbox"/> Default effective till date is used <input type="checkbox"/> Duplicate e.212 found, maximal price applied <input type="checkbox"/> e.212 code is empty <input checked="" type="checkbox"/> e.212 code not numeric <input type="checkbox"/> e.212 has invalid length <input type="checkbox"/> e.212 uniqueness violated <input type="checkbox"/> Effective date too far from current date <input type="checkbox"/> Effective from parsing error <input type="checkbox"/> Effective till parsing error <input type="checkbox"/> Ignored due to contract company restrictions		

Error type levels

The *Error Type levels* page enables defining the errors or their combinations (groups) that are considered critical for auto rate import. The occurrence of all errors in a group during auto import blocks the import task. If some errors within a group do not occur, the auto rate import proceeds.

The right panel contains the *Add* and *Edit* tabs that serve to configure groups of errors.

Add		Edit	
Group name*:	e.212 code not numeric		
Step*:	Parsing		
Error types*:	<input type="checkbox"/> Country dial code not numeric <input type="checkbox"/> Crossing rates <input type="checkbox"/> Data in not supported code page <input type="checkbox"/> Default effective from date is used <input type="checkbox"/> Default effective till date is used <input type="checkbox"/> Duplicate e.212 found, maximal price applied <input type="checkbox"/> e.212 code is empty <input checked="" type="checkbox"/> e.212 code not numeric <input checked="" type="checkbox"/> e.212 has invalid length <input checked="" type="checkbox"/> e.212 uniqueness violated <input type="checkbox"/> Effective date too far from current date <input type="checkbox"/> Effective from parsing error <input type="checkbox"/> Effective till parsing error <input type="checkbox"/> Ignored due to contract company restrictions		

Add tab

The *Add* tab allows defining errors and combining them into groups. It contains the following parameters:

- *Group name*: name of the group of errors
- *Step*: stage on which the auto import operation is blocked (*Parsing* or *Import*)

- *Error types*: contains a list of errors. If several errors are selected, only the occurrence of all of them stops the import process.

Click  to save the changes.

Rate sheet files containing the all errors within a group will not be imported.

Auto import rules tab sheet

Open the *Auto import rules* tab sheet. It contains a list of rules for automatic import. Test rules are highlighted in bold italic font, while inactive rules are greyed out. The  button at the bottom serves to export the rules table to a MS Excel file.

The page is divided in two panels. The left panel is a table of configured import rules.

★ Start Page		📁 Auto Rate Import ✕			
Auto import rules		Error type levels			
↕	ID	Carrier	Product	Masks	Parser
		All ▾	All ▾	<input type="text" value=""/>	All ▾
	10008	British Hairways	Premium (USD) - Vendor	<i>File name: *premium*</i> <i>Mail from: *@bh.co.uk</i>	Internal library
	10000	Boring Enterprises	WholeSale (USD) - Ven...	<i>File name: *wholesale*</i> <i>Mail from: *@boringenterprises.com</i>	Internal library

Auto import rules

The table columns contain the parameters that are configured in the right-hand panel.

+ Add Edit Simulation	
Carrier*:	Boring Enterprises
Product*:	WholeSale (USD) - Vendor
File name mask:	*premium*
Mail from mask:	*boring*
Mail to mask:	
Mail subject mask:	*rates*
Mail text mask:	
Parser*:	Internal library
Preset version*:	International (current rate import)
Preset*:	am
Owner notification:	Full report
Carrier notification:	Full report
Short report recipients:	
<input checked="" type="checkbox"/> Full report recipients:	
<input type="checkbox"/> Do not send reports to external recipients <input checked="" type="checkbox"/> Rule enabled <input type="checkbox"/> Test rule	

Add tab

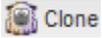
The right panel contains the *Add* and *Edit* tabs that allow adding new rules or editing existing ones, and the *Simulation* tab that serves to test the rule.

To activate the *Edit* tab, click on the record in the table. Enter the above listed parameters in the appropriate fields. Fields marked with an asterisk (*) are required.

- *Carrier*: name of the vendor – sender of the attached ratesheet
- *Product*: name of the vendor's product
- *File name mask*, *Mail from mask*, *Mail to mask*, *Mail subject mask*, and *Mail text mask*: use an asterisk * to define a mask
- *Parser*: parsing rule for processing of the ratesheet files (default value – Internal library)
- *Preset*: template for parsing a certain format of the ratesheet file (*.xls, *.xlsx etc.). Presets are created in the rate file import settings panel at [SMS\Rates\Rate import](#) ^[258]

- *Owner notification: (Not sent, Short report, Full report):* the System owner receives a short message or detailed description on the ratesheet processing results or does not receive any of them
- *Carrier notification: (Not sent, Short report, Full report):* the vendor receives short message or detailed description on the ratesheet processing results or does not receive any of them
- *Short report recipients:* email-address(es) for delivery of short reports on the ratesheet processing results
- *Full report recipients:* email-address(es) for delivery of full reports on the ratesheet processing results
- *Do not send reports to external recipients:* send reports only to managers of the accounts pertaining to the selected carrier
- *Rule enabled:* select when the tests are complete to activate the rule
- *Test rule:* select when testing the rule. Rules with the selected checkbox will not be imported

When through with defining the parameters, click  to confirm or  to discard the settings.

The  button creates a duplicate of the configured rule. This is helpful when you wish to configure another rule with similar parameters.

Use the  button to delete the selected rule.

To test the rule, open the *Simulation* tab.

 Add
 Edit
 Simulation

Carrier*:	<input style="width: 90%;" type="text" value="Empresa Quebrada Pte."/>
Product*:	<input style="width: 90%;" type="text" value="Premium (EUR) - Vendor"/>
File name*:	<input style="width: 90%;" type="text" value="Premium"/>
Mail from:	<input style="width: 90%;" type="text"/>
Mail to:	<input style="width: 90%;" type="text"/>
Mail subject:	<input style="width: 90%;" type="text"/>
Mail text:	<input style="width: 90%; height: 40px;" type="text"/>
Parser:	<input style="width: 90%;" type="text"/>
Template:	<input style="width: 90%;" type="text"/>
Owner notification:	<input style="width: 90%;" type="text"/>
Carrier notification:	<input style="width: 90%;" type="text"/>
Short report recipients:	<input style="width: 90%;" type="text"/>
Full report recipients:	<input style="width: 90%;" type="text"/>

Simulation

Enter the appropriate parameters and click . The test results will appear on the *Simulation* panel. Once the tests are completed, return to the *Edit* tab and check the *Rule enabled* flag to activate the rule.

9.3.2 Rate Editor

The *SMS\Rates\Rate editor* section allows viewing and modifying single rates and rate groups registered in the System, as well as manually create new rates.

The section consists of two pages: *Rate groups* and *Rates*.

9.3.2.1 Rate groups

The *Rate groups* page contains the *Rate filter* view with filtering and grouping options, and the *Rate groups* table displaying the rates grouped as defined in the filter.

The  button in the upper left corner of the page toggles the *Rate filter* view.

Rate filter <<

Presets: ✔ Load 💾 Save ✖ Delete

Group by: Country Net
 MCC Sender MCCMNC
 MCCMNC Effective interval
 Product Rate note

Carrier region: ▼

Manager: ▼

Carrier: ▼

Client/Vendor: ▼

Product name: ▼

Product: ✎

Show rates from parent product
 Show inherited rates

Country: ▼

Net: ▼

MCCMNC: 📖

Dial code:

rates valid at 📅 ▼

effective interval
start date between: 📅 and 📅
end date between: 📅 and 📅

Rate currency: ▼

Rate value: from to ▼

<input checked="" type="checkbox"/>	Select all		
<input checked="" type="checkbox"/>	Empty value		
<input checked="" type="checkbox"/>	!@#\$%^&*()		✖
<input checked="" type="checkbox"/>	-		✖
<input checked="" type="checkbox"/>	0 HOP Alpha Sender Dynamic, T2		✖

Rate filter

The *Presets* toolbar at the top of the *Rate filter* enables the user to create, upload and delete preconfigured filtering presets:



Presets toolbar

In the *Group by* field, select one or several checkboxes to define grouping parameters: *Country*, *MCC*, *MCCMNC*, *Product*, *Net*, *Sender MCCMNC*, *Effective interval* or *Rate note*. If none of the grouping checkboxes is selected, the System displays one group with the total number of rates in the selection according to the following filter parameters:

- *Carrier region*
- *Manager*: account manager
- *Carrier*
- *Client/Vendor*
- *Product name*: type of SLA (for example, premium, wholesale etc.)
- *Product*: specific carrier product. Select several products to compare rates between them. Click  on the  button for multiple selection
- *Show rates from inactive products*: when selected, the filter displays all rates, including products that have the *Is active* checkbox deselected. See also the [Alaris YouTube video](#)
- *Show rates from parent product*: select this checkbox if you wish to include rates from the parent product into the output
- *Show inherited rates* (active when the *Show rates from parent product* checkbox is selected): when selected, the parent product rates are shown in grey italic font. When any edits are made to the inherited rates (that is, the child product rates) the rates in the parent product remain unchanged, but a new rate is added to the child product instead.
- *Country*
- *Net*: network name
- *MCCMNC*: masks with % and * symbols are supported
- *Dial code*: is used when a single MCCMNC includes several dial codes with different rates. For example, two dial codes +1212 и +1718 with different rates can exist for the MCCMNC 310779. Enter the appropriate dial code to view its rates
- *Rates valid at*: rates effective at the specified date/time
- *Effective interval*: rates effective in the specified period
- *Rate currency*
- *Rate value from... to...*: price range for more precise filtering
- *Rate notes*: the table containing comments available in the *Rate note* field (editable only if *Grouping by rate notes* is set). Select rate notes by setting appropriate flags or remove a note from all rates by clicking 

NOTE: System notes such as *BLOCKED* and *Volume-based deal* do not contain the  button and cannot be removed.

Click  **Apply filter** to display the rates complying to the filter parameters. Click  **Clear filter** to reset the form. The filtered rates will appear in the *Rate groups* tab sheet, grouped by the parameters specified in the *Rate filter* panel. Rates in the figure below are grouped by *Country*, *Net*, and *MCCMNC*.

NOTE: The *Bill by* column takes the values: *D* (rates with the dial code/sender ID) or *SM* (rates with Sender MCCMNC).

Rate groups		Rates				
Select row and go to next tab						
Bill by	Country	Net	MCCMNC	Rate	Curre...	Rate count
D	Abkhazia	A-Mobile	289088	0.00805	USD	1
D	Abkhazia	Aquaфон (Abkhazia)	289067	0.00805	USD	1
D	Abkhazia	All networks	289	{.}	{.}	35
D	Afghanistan	All networks	412	{.}	{.}	52
D	Afghanistan	Afghan Telecom	412088	{.}	{.}	25
D	Afghanistan	AWCC	412001	{.}	{.}	82
D	Afghanistan	Etisalat Afghanistan	412050	{.}	{.}	78
D	Afghanistan	MTN Afghanistan	412040	{.}	{.}	85
D	Afghanistan	ROSHAN	412020	{.}	{.}	86
D	Albania	Plus Communication	276004	{.}	{.}	82
D	Albania	Eagle Mobile	276003	{.}	{.}	87
D	Albania	AMC	276001	{.}	{.}	84
D	Albania	All networks	276	{.}	{.}	52
D	Albania	Vodafone Albania	276002	{.}	{.}	80
D	Algeria	Mobilis	603001	{.}	{.}	92
D	Algeria	Djezzy	603002	{.}	{.}	87
D	Algeria	Nedjma	603003	{.}	{.}	93
D	Algeria	All networks	603	{.}	{.}	50

Rate groups table

Click  **Close** to modify the *Active till* date of the rate group.

Click  **Edit** to edit the rate group.

NOTE: When editing the *Sender MCCMNC* of a rate group, rates will be merged if the new rate overlaps with an existing one. This may cause billing discrepancies for the past traffic. To prevent this, a warning message appears when the user attempts to change the *Sender MCCMNC* of a rate group.

Click the  **Clone** button to create an exact copy of the selected rate group, so that a new group can be created by means of changing one or several parameters of the clone.

Click  **Export to Excel** to export the table to a MS Excel file.

Click the  **Add period** button to modify the rate group *Active from* and/or *Active till* dates; the old rates will be active for the dates that do not overlap with the new period. For example, suppose there is a rate valid from 2016.01.01 till 2100.01.01 and you need to increase it. Click  **Add period**, set the *Active from*

date to 2017.02.01 and the *Active till* date to 2100.01.01. In this way, you will have two rates: the old one from 2016.01.01 till 2017.02.01 and the new one from 2017.02.01 till 2100.01.01.

NOTE: The buttons  Close,  Clone,  Add period are only active if a single product is selected in the *Product* multipicker in the *Rate filter*.

9.3.2.2 Rates

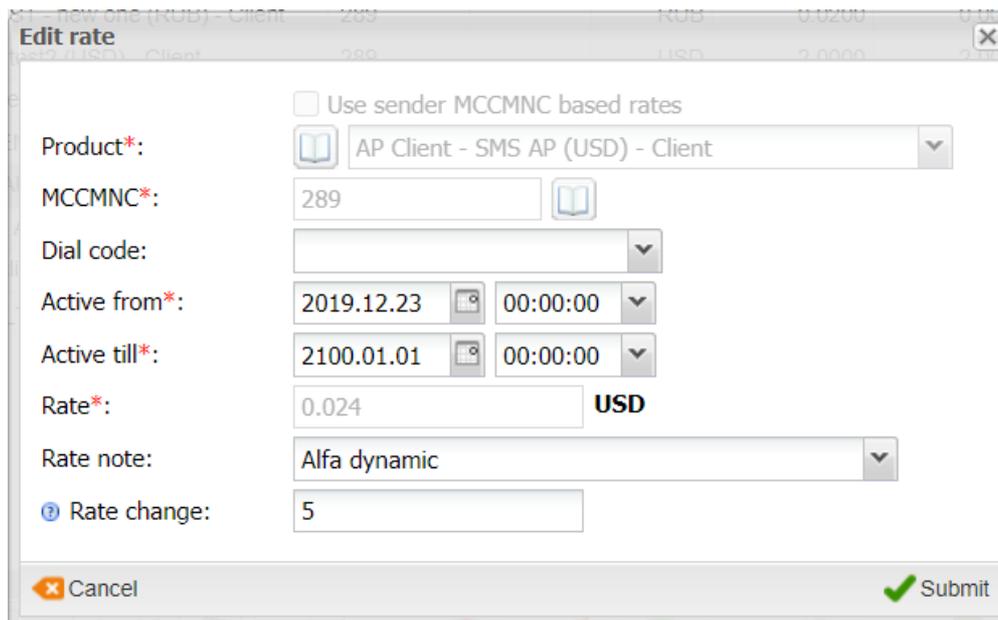
The *Rates* page is disabled by default. To enable it, click on one of the rate groups in the *Rate groups* table. The *Rates* page will display the rates in the selected rate group, allowing you to edit them one by one or in the group edit mode.

Rate groups		Rates				
<input type="checkbox"/>	Product	MCC MNC	Dial code	Currency	Price	Price (USD)
<input type="checkbox"/>	PocoDinero Enterprises - Wholesale (EUR) - Client	289		EUR	0.00890	0.00890
<input type="checkbox"/>	PocoDinero Enterprises - Wholesale (EUR) - Ve...	289		EUR	0.01010	0.01010

Rates table

Click the  button on the bottom toolbar to refresh the table.

Double-click on a rate to open the *Edit rate* dialog.



The *Edit rate* dialog box contains the following fields and controls:

- Use sender MCCMNC based rates
- Product*: AP Client - SMS AP (USD) - Client
- MCCMNC*: 289
- Dial code: [Empty field]
- Active from*: 2019.12.23 00:00:00
- Active till*: 2100.01.01 00:00:00
- Rate*: 0.024 USD
- Rate note: Alfa dynamic
- Rate change: 5

Buttons: Cancel, Submit

Edit rate dialog

NOTE: If you change the *Active from* date and the rate will be starting later, the period not covered by the rate will lose the billing information. A note explaining this will appear on the screen. Learn more about the warning in [Alaris YouTube video](#).

The *Rate change* field allows changing the rate. A percentage or an absolute value can be entered in this field. For example, the value 5 or +5 will increase the rate by 5 currency units (US Dollars, Euro etc.), while the value 5% will increase the rate by 5 per cent. Negative values can also be used. For example, -5 will decrease the rate by 5 currency units, while -5% will decrease the rate by 5 per cent. See also the [Alaris YouTube video](#).

The bottom part of the *Rates* page contains a table with rate history details. Click on a rate in the *Rates* table to view the history of the rate changes. The *History status* column indicates the rate periods as *previous*, *selected* or *upcoming*. Double click a record to edit it.

NOTE: For example, editing the rate history may come useful when correcting an erroneous price etc.

Rate history (double click to edit)				
History status	Price	Country	Net	Act
selected	0.00890	Abkhazia	All networks	201

 Roll back rates	 Add rate	 Add rate to group	 Close rate group	 Edit rate group
---	--	---	--	---

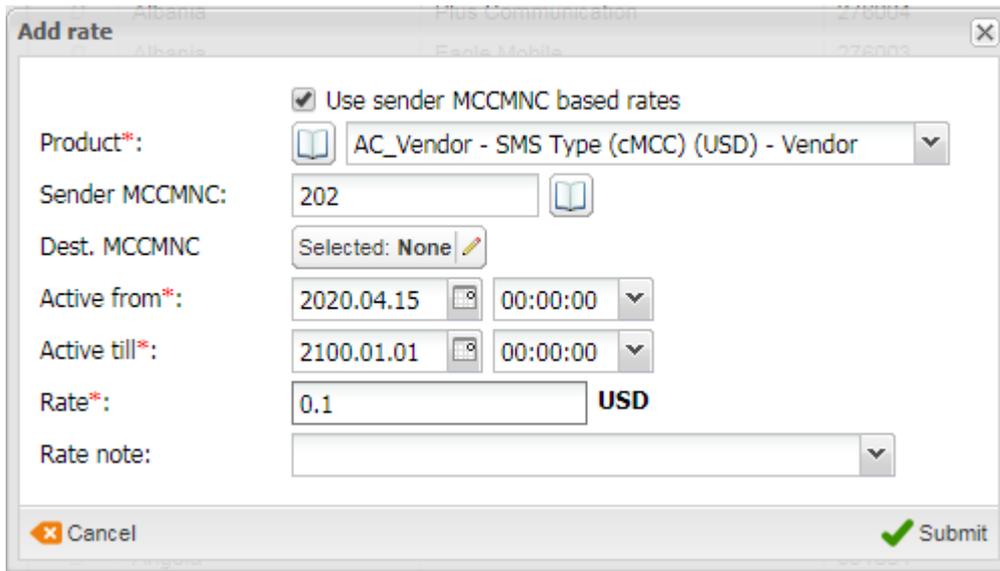
Rate history

Below is a list of available actions with rates. They are invoked by appropriate buttons located on the instrument panels above and below the *Rate history* table.

- *Add rate*
- *Add rate to group*
- *Roll back rates*
- *Add period*
- *Edit*
- *Close*
- *Clone*
- *Export to Excel*

Add rate: add a new rate

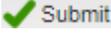
Click the  button to open the *Add rate* dialog.



Add rate dialog

The configurable parameters of the *Add rate* dialog are:

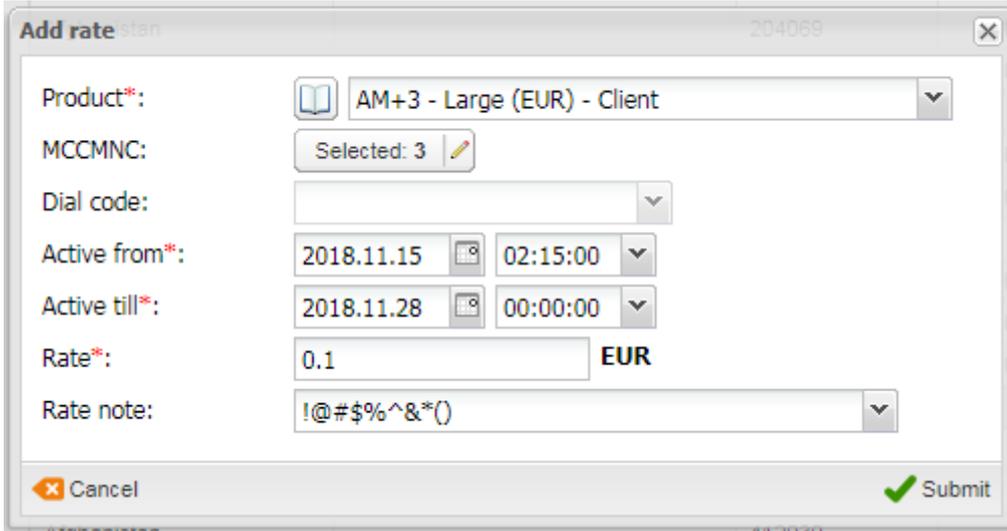
- *Use sender MCCMNC based rates*: select to add a rate for p2p traffic. In the fields *Sender MCCMNC* and *Dest. MCCMNC* specify the appropriate MCCMNC(s)
- *Product*: the carrier product the rate belongs to. Select the product from the drop-down list or click the  button to open the *Product* table
- *MCCMNC* (active if the *Dial code* field is empty)
- *Dial code* (active if the *MCCMNC* field is empty)
- *Sender MCCMNC*, *Dest. MCCMNC*: available if *Use sender MCCMNC based rates* is selected
- *Active from/Active till*: select the active period of the price. If the entered period overlaps with a rate for the same carrier name/carrier product parameters, a new rate cannot be added. Specify a period that does not overlap with an existing rate. If the carrier name/carrier product match some of the existing rates, the existing rates will change – a new period (with the new price) will be added. If the user creates a unique rate (there are no rates with same carrier name/carrier product in the System), then a new rate will be added
- *Rate*
- *Rate note*: optionally the user can specify notes for the rate. Usually they correspond to quality-related details of the breakout (*CLI*, *Premium* etc.). If the field value is *Swap deal*, such rate will not be overwritten during rate import

When through with defining the parameters, click  **Submit** to confirm or  **Cancel** to discard the settings.

Add rate to group

Click the  **Add rate to group** button to add a new dial code directly to the selected rate group, i.e. the fields in the *Add rate* window that correlate with the selected *Group by* filters will be filled automatically.

NOTE: If a *Group by country* filter is on and the group has several MCCMNC codes, the *MCCMNC* field will show the MCC code.



Add rate stan 204069 ✕

Product*:  AM+3 - Large (EUR) - Client ▼

MCCMNC: Selected: 3 

Dial code: ▼

Active from*: 2018.11.15  02:15:00 ▼

Active till*: 2018.11.28  00:00:00 ▼

Rate*: 0.1 **EUR**

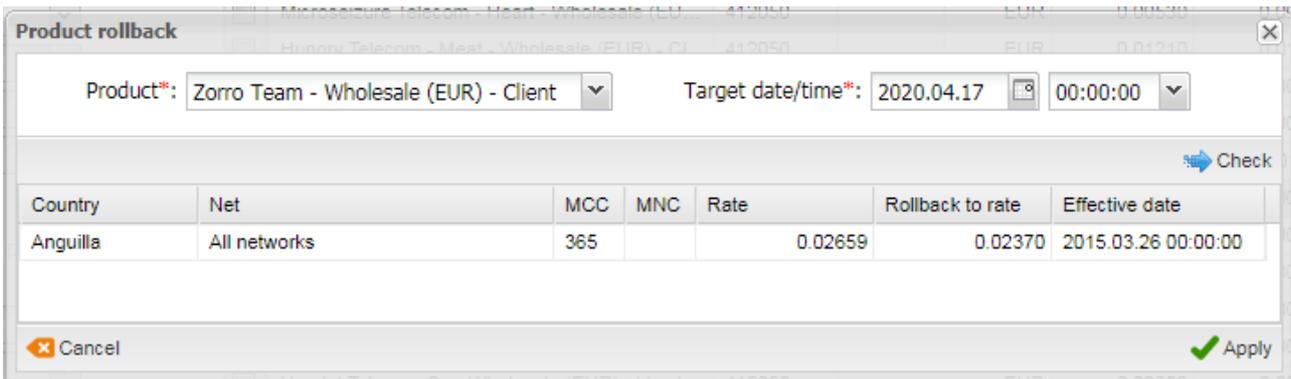
Rate note: !@#\$%^&*() ▼

✕ Cancel ✔ Submit

Add rate to group

Roll back rates

Click the  button to open the *Product rollback* dialog.



Product rollback ✕

Product*: Zorro Team - Wholesale (EUR) - Client ▼ Target date/time*: 2020.04.17  00:00:00 ▼

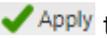
➡ Check

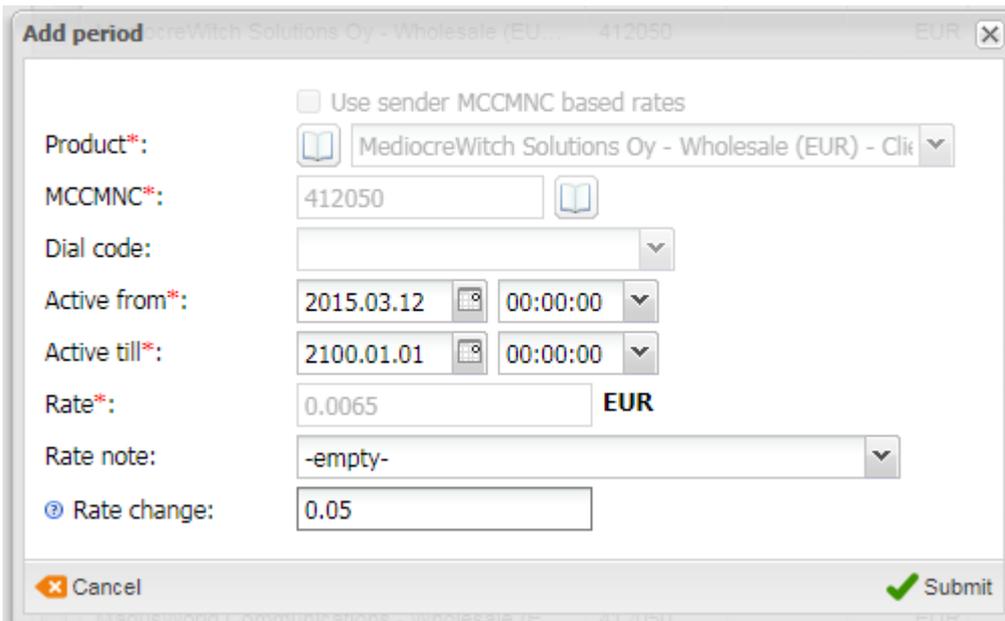
Country	Net	MCC	MNC	Rate	Rollback to rate	Effective date
Anguilla	All networks	365		0.02659	0.02370	2015.03.26 00:00:00

✕ Cancel ✔ Apply

Product rollback

The dialog serves to discard all changes made to the rates of the specified product since the target date/time. The option is used to correct possible erroneous actions (wrong ratesheet imported etc.):

- Select the required product from the drop-down list or use the  button to open the *Products* table
- Set the target date and time
- Click  to get a preview of the changes that will be applied
- Click  to confirm or  to discard the settings



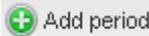
Add period

Add period

Click the  button to modify the rate *Active from* and/or *Active till* dates; the old rate will be active for the dates that do not overlap with the new period. For example, suppose there is a rate valid from 2016.01.01 till 2100.01.01 and you need to increase it. Click , set the *Active from* date to 2017.02.01 and the *Active till* date to 2100.01.01. In this way, you will have two rates: the old one from 2016.01.01 till 2017.02.01 and the new one from 2017.02.01 till 2100.01.01.

Edit

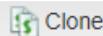
Click the  button to modify the rate *Active from* and/or *Active till* dates; the rates whose dates do not overlap with the new period are removed from routing. For example, the original rate period is June 10 – June 20; the corrected period is June 10 – June 15.

NOTE: Rates for the period between June 16 and June 20 will be removed from routing. This control is recommended for correcting erroneous new rates. In other cases it is recommended to use  rather than .

Close

Click the  button to close one or several rates after a certain date/time. Once you choose this option, only the *Active till* field is editable. Set the *Active till* value to close the rates by that date-time stamp. All intervals of the rate history that are later in time than that point will be deleted.

Clone

Click the  button to create an exact copy of the selected rate, so that a new rate can be created by means of changing one or several parameters of the clone. A new rate without any changes is not added to the System. It is recommended for use when creating a new rate with similar parameters.

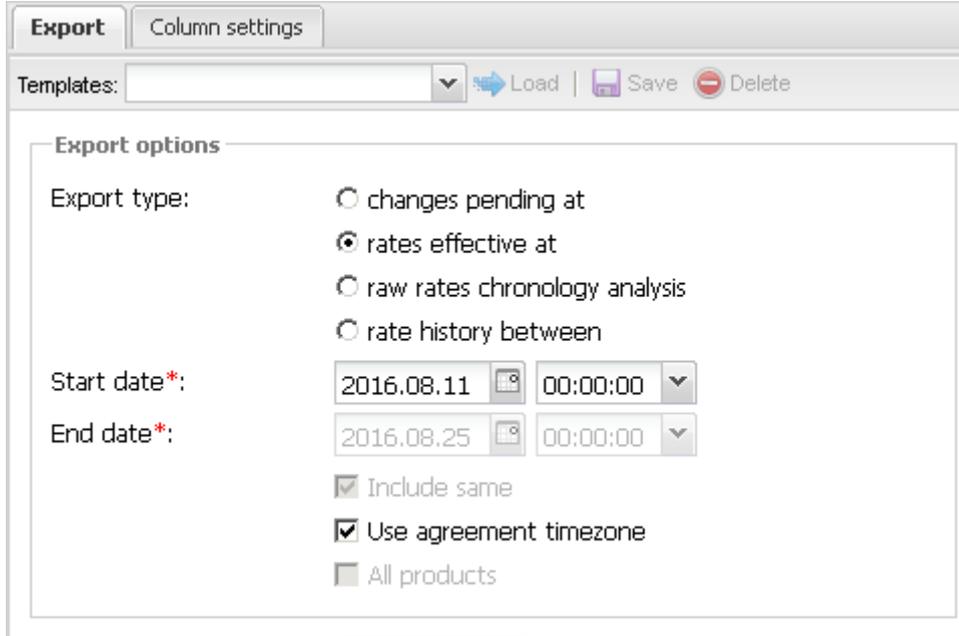
9.3.3 Rate Export

The *SMS\Rates\Rate export* page enables the user to download rate data from the System database to a file (for analysis) or send it to partners' e-mails. The page consists of two tab sheets: *Export* and *Column*

settings.

9.3.3.1 Export

The *Export* tab sheet serves to select rates to be exported, by applying the following filters:



Export options

- *Export type:* includes the following radio buttons:
 - *Changes pending at:* export scheduled rate changes starting with the date indicated in the *Start date* parameter. In the exported file, rates are marked in compliance with pending changes: *increase, decrease, new, close, same*
 - *Rates effective at:* export rates as of the date indicated in the *Start date* parameter
 - *Raw rates chronology analysis:* export rates available on *Start date* and *End date*, and analyze if any changes were made between the dates. For example, select the *Start date* 1 October and the *End date* 10 October. Suppose somewhere between these dates the rate for the whole period was changed from 0.05 to 0.06. The exported file will show the change

NOTE: The latest rate change overwrites all the previous changes. For example, if the rate was changed from 0.05 to 0.06 on October 2, and to 0.07 on October 9, the System will only show the increase from 0.05 to 0.07. It is recommended to use this parameter when the whole rate was changed retrospectively.

- *Rate history between:* export history of rate changes for the period between the *Start date* and *End date* and analyze if any planned changes were made within the period. Unlike the previous parameter, the System will not show changes for the whole period but display all changes planned (or effected) between the *Start date* and *End date* for part of the period (future dates can be included). For example, select the *Start date* 1 October and the *End date* 10 October. Suppose the rate was 0.05 between October 1 and October 6 and was changed to 0.06 starting October 7. This change will be reflected in the exported file. It is recommended to use this parameter in most cases involving rate history analysis
- *Include same:* check the flag to include the rates that were unchanged
- *Use agreement timezone:* use the partner's time zone in the exported rates

- *All products*: export rates for all products registered in the System

Carriers:

Direction:

SMS products:

Include parent rates

Product preset:

Mobile country code:

SMS net:

Export target: Send via email Export to file

File format:

Send exported file to:

send to partner emails

CC exported file to:

Cancel auto export tasks

Show closest changes

Comments:

Export, continued

- *Carriers*
- *Direction*
- *SMS products*: carrier SMS product(s) associated with the exported rates. Check *include parent rates* to include rates of parent products (if applicable)

NOTE: The *include parent rates* checkbox is enabled by default for rate export tasks triggered by rate changes (when the option *Send rate change notifications automatically* is set to either *Send partial price list* or *Send full price list* in [Carriers\Products](#)^[103]). See also the [Alaris YouTube](#) video.

- *Product preset*: a set of columns in the exported file defined in the [Column settings](#)^[252] tab sheet
- *Mobile country code*
- *SMS net*: network name
- *MCCMNC/Dial code list*: unfold the form by clicking  and enter MCCMNC and/or dial codes if necessary

MCCMNC / Dial code list	
MCCMNC	Dialcode
202002	

MCCMNC/Dial code list

- *Export target*: indicate how the file should be exported. Options include:
 - *Send via email*
 - *Export to file*
- *File format*: select *Excel* or *CSV*
- *Send exported file to*: specify comma-separated email addresses for file delivery. Check the *Send to partner emails* flag to deliver the file to the carrier emails configured in [Carriers\Agreements](#) ^[252] (*Default rate change emails* parameter).
- *CC exported file to*: a copy of rate export results is sent to the addresses specified in the field. The addresses must be separated by comma or comma followed by blank space. Check out the [Alaris YouTube video](#) for more detail.

NOTE: Each partner receives only rates pertaining to their accounts. A copy of the message is also sent to the partner's account manager.

- *Cancel auto export tasks* (available if the *SMS net* filter is set to *All*, the *MCCMNC/Dial codes list* is empty, and the *Products* filter is not set to *All* OR the *Export type* is set to a value other than *raw rates chronology analysis* and the *All products* checkbox is selected): the checkbox serves to avoid repeated sending of rates to partners (for example, when the rate update was scheduled to be sent automatically but the user already sent it manually). If the checkbox is selected and a specific product is selected for manual export, previously scheduled automatic export tasks for the same product are canceled
- *Show closest changes* (available when the *Export type* is *changes pending at*): when enabled, the agreement settings are ignored and only those rates will be exported that are effective as of the date set in the *Start date* field and the changes that come into effect as of the *Start date*. Example: suppose the following rates exist in the System:
 - MCCMNC Start date End date Price
 - 250001 2019.04.01 2019.09.01 0.1
 - 250001 2019.09.01 2100.01.01 0.2
 - 250002 2019.01.01 2100.01.01 0.3
 - 250099 2019.01.01 2019.05.01 0.4
 - 250099 2019.05.01 2019.05.05 0.3
 - 250099 2019.05.05 2100.01.01 0.5

If the *Show closest changes checkbox* is selected, and the *Start date* is set to 2019.04.20, the following rates will be exported:

- MCCMNC Start date End date Price
- 250001 2019.09.01 2100.01.01 0.2 - increase
- 250002 2019.01.01 2100.01.01 0.3 - same
- 250099 2019.05.01 2019.05.05 0.3 - decrease

If the checkbox is deselected and all *Rate notification periods* in the agreement are set to 7 days, the following rates will be exported:

- MCCMNC Start date End date Price
 - 250001 2019.04.01 2019.09.01 0.1 - same
 - 250002 2019.01.01 2100.01.01 0.3 - same
 - 250099 2019.01.01 2019.05.01 0.4 - same
- *Comments*: arbitrary comments

NOTE: The field appears in the exported file only if the Comments field is configured in the MS Excel template file ([Administration\Template manager](#) ⁽²⁵²⁾)

Tasks

The *Tasks* table displays a list of recent rate export tasks with the following information:

Tasks					
Job created	Product	Status	Details	User name	
 $-\infty \leq X \leq \infty$	All	All		All	
2016.12.27 10:32:55	ALARIS TEST - CLI (USD) - Client	ready	download	Alaris	
2016.08.16 14:11:34	Ahn Wee - WholeSale (USD) - Cli...	error	9532: Java c...	Alaris	
2016.08.05 09:01:03	Ahn Wee - WholeSale (USD) - Cli...	error	9532: Java c...	Alaris	
2016.08.04 14:37:40	Ahn Wee - WholeSale (USD) - Cli...	ready	download	Alaris	

Tasks

- *Job created*: date and time of the task creation
- *Product*: relevant product
- *Status*: status of the task. Possible values:
 - *new*
 - *in progress* (with the progress percentage specified)
 - *aborted* (if terminated manually by the user)
 - *ready*
 - *error*
 - *pending*: currently out of use
 - *queued*
 - *scheduled*: the task is scheduled for a specific time

NOTE: Tasks that have the *Export target* value *Send via email* change their status as follows: *New* > *Queued* > *In progress* > *Sent* (in case of success) or *Error* in case of email sending failure. Tasks that have the *Export to file* value change their status as follows: *New* > *In progress* > *Ready*.

- *Details* can contain:
 - error description if an error occurs during the export procedure
 - *sent* status if the *Send via email* option is selected
 - a link to the generated file if the *Export to file* option is selected
 - *Abort task* ■ button if the task is in progress
- *User name*: name of the user that initiated the procedure

Click the  button to refresh the table.

Any task can be restarted with the previously configured settings. To restart a task, select it in the table and click the  **Restart export** button located at the bottom toolbar.

By default, created tasks remain in the System for the period of 30 days, and the list of tasks has no length restrictions.

Task details

The *Task details* table provides an overview of parameters for the task selected in the *Tasks* table.

Task details			
Product:	KA_SMS_client - a2 (USD) - Client	Include parent rates:	No
Export type:	raw rates chronology analysis	Direction:	All
Start date:	2019.10.01 00:00:00	End date:	2019.11.28 00:00:00
Use agreement timezone:	No	Include same:	Yes
Mobile country code:	<input type="text" value="Selected: All"/>	SMS net:	<input type="text" value="Selected: All"/>
File format:	Excel	MCCMNC / Dial code list:	<input type="text" value="Selected: All"/>
Export target:	Export to file	Comments:	---
All carriers in task:	KA_SMS_client	All products:	No

Task details

Export can be configured for several grouped products. For every product in a group a separate task is created. The *Task details* table shows all products within one task.

9.3.3.2 Column settings

The *Column settings* tab sheet serves to configure columns of the output MS Excel file. Such set of columns and their parameters is called a product preset. The *Column settings* tab sheet contains four panels: the upper left panel is a table of product presets, the bottom left panel shows details of the selected record; the top right panel contains the *Add* and *Edit* tabs for creating and editing a product preset; the bottom right panel contains the *Add* and *Edit* tabs for configuring columns within the preset.

Export		Column settings				
Description	Contract company	Direction	Carrier	Product	Export type	
Text mask	Any	Any	Any	Any	Any	
anton	Any	Any	Any	Any	Any	
Pocodinero Preset	Alarislabs Demo 3.4	Vendor	PocoDinero Enterprises	PocoDinero Enterpris...	changes pending at	

Table of product presets

To create a new product preset, open the *Add* tab in the top right panel and enter the appropriate parameters in the fields detailed below. Fields marked with an asterisk (*) are required.

 Add
 Edit

Description*:

Contract company*:

Direction*:

Carrier*:

Product*:

Export type*:

Add tab

- *Description*: name of the product preset
- *Contract company*: the legal entity of the System owner on behalf of which it works with the carrier
- *Direction*
- *Carrier*
- *Product*
- *Export type*: the parameter configured in the *Export* tab sheet (options include: *changes pending at*, *rates effective at* or *rate history between*)

Click  **Submit** to save the changes. Click  **Reset** to clear the form. Click  **Clone** to create a copy of a record selected in the table (the button opens the *Add* tab with the parameters of the record. Edit them as appropriate and click  **Submit**).

A new product preset contains the following default columns:

- *MCC*
- *MNC*
- *DIALCODE*: dial code in E164 format
- *COUNTRY*
- *NETWORK*: network name
- *RATE START DATE*

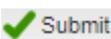
- *RATE*
- *CHANGE TYPE*: describes the rate change (*increase, decrease, new, close, same*)

	System column	User column name	Width	Alignment	Rounding precision	Sort order	Sort direction
1	MCC	MCC	40	left		1	asc
2	MNC	MNC	40	left		2	asc
3	DIALCODE	Dial code	45	left			-
4	COUNTRY	Country	150	left			-
5	NETWORK	Network	250	left			-
6	RATE_START_DATE	Effective date	100	center			-
7	RATE	Rate	60	right	6		-
8	CHANGE_TYPE	Change type	80	left			-

Details of a selected preset

The user can edit the parameters of the default columns (use the *Edit* tab at the bottom right panel) or add new columns (use the *Add* tab at the bottom right panel). When adding a new column, configure the following settings (fields marked with an asterisk (*) are required):

- *System column*: select the data type in the drop-down list. Values include:
 - *RATE_NOTE*: comments configured in the *Rate note* field
 - *MCCMNC5*: MCCMNC code in a 5-digit format, with the first digit of the MNC code removed (for example, if the 6-digit MCCMNC code is 202002, the 5-digit code is 20202)
 - *RATE_END_DATE*
 - *PREV_RATE*: the value of the previous rate
- *User column name*: the name of the column
- *Width*
- *Alignment*
- *Rounding precision*
- *Sort order*: specify sorting priority for the columns, with 1 being the highest priority. Possible values are 1, 2, 3. For example, in the figure above columns will be first sorted by *MCC* (value 1 in the *Sort order* field) and then by *MNC* (value 2 in the *Sort order* field)
- *Sort direction*: select *asc* for ascending and *desc* for descending

Click  to save the changes. Click  to clear the form. Click  to delete the column.

9.3.4 Rate Import

Uploading of supplier ratesheets is probably the most common everyday task for any carrier. The key challenge of automatic rate upload is the diversity of ratesheet file formats used by carriers. Besides, it is important to automatically check the imported data for integrity, syntax and compliance of the rate details (increase dates in particular) with the interconnect agreement terms. Another significant parameter is the import speed. So we designed a tool for MS Excel ratesheet parsing that is robust, efficient and at the same time easy to understand and convenient to use.

The *SMS\Rates\Rate import (old)* page enables uploading partner rate sheets to the System as .csv, .xls and .xlsx files. Rate import can be performed in two ways:

- Manually – the System owner manually configures the rate sheet format and launches import (further detailed in this section)
- Automatically – all incoming rate sheets are imported automatically based on a preconfigured import template (see [SMS\Rates\Auto rate import](#)^[235])

The procedure for rate import is as follows:

1. The System owner creates a mailbox for receipt of partner rate sheets and communicates the email address to the Alaris support team to register it with the System
2. Vendors send their rate sheets to this email address; client rate sheets are uploaded to the System manually using the  button. The rate sheet files are displayed at the *SMS\Rates\Rate import* page

NOTE: The System can process attached ZIP archives, including those containing subfolders.

3. In case of auto rate import, the files are imported in the System automatically
4. In case of manual rate import, the System owner performs rate sheet parsing in order to translate the file in the format that can be processed by the System (see [SMS\Rates\Rate import\Rate sheet parsing](#)^[263] for more detail)
5. The System owner analyzes the import results, makes corrections if necessary and applies the new rates to the System (or cancels the import)

To start rate import:

1. Go to *SMS\Rates\Rate import*
2. Select a file in the *Select file* table
3. Supply appropriate values in the *Import settings* panel
4. Click  to proceed to rate sheet parsing

Below is a detailed overview of the *SMS\Rates\Rate import* page.

9.3.4.1 Rate import page overview

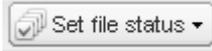
The *SMS\Rates\Rate import* page contains three sections: file import queue, *Tasks* and *Import settings*. The top left section is a file import queue that displays files both received to the email address and uploaded by the System owner.

Select file					
<input type="checkbox"/>	Status	Carrier	Product	File name	Date
	All	All	All		
<input checked="" type="checkbox"/>	Imported	Boring Enterprises	Retail (USD) - Vendor	SMS_AGGREGATOR_EUR_EXTERNAL.xlsx	2016.06.
<input type="checkbox"/>	Imported	ALARIS TEST		a-z_mcc_only_rates.xlsx	2015.11.
<input type="checkbox"/>	Imported	Mensajes Largos Ltd.		OFFER_2.xls	2015.10.
<input type="checkbox"/>	Imported	Dorado El Telecom - Gold		prueba1.csv	2015.10.
<input type="checkbox"/>	Not imported	Alice Wondersystems		Nexmo.xlsx	2015.10.
<input type="checkbox"/>	Not imported	ALARIS TEST		Price_for_sergei_test - Copy.xls	2015.10.

File import queue

The table contains the following columns (self-explanatory columns are not described below):

- *Status*: displays one of the following values: *Not imported* (has not been parsed), *Imported*, *Confirmed* (is set by the user to mark successfully imported files), *Ignored* (is set by the user to mark files not intended for import), *Canceled* (the import is canceled by the user – for example, after preview) and *Failed* (if any errors were found during auto rate import). Click



below the table to change the status of selected records

- *File name*: click on the file name to open the rate sheet file
- *Mail parameters*: *Mail from*, *Mail to* and *Mail subject* Click a record to edit the rate sheet file properties as illustrated below: *Carrier*, *Product* and mail parameters: *From*, *To* and *Subject*.

Edit file properties

The panel below the table contains the following buttons: - delete the selected record;

- upload a file for import; - change the file status; - perform automatic import of the file.

The bottom section of the page is the *Tasks* table containing import tasks (for both manual and auto import).

Tasks						
Product	Import mode	Status	Summary	Details	User name	
All		All			All	
Boring Enterprises - Retail (USD) - Vendor	auto	ready	Valid rates found in file: 10...	view	Alaris	
ALARIS TEST - LCR (USD) - Client	choice	aborted	Timed out - canceled autom...		Alaris	
Boring Enterprises - Retail (USD) - Vendor	choice	ready	completed		Alaris	
Boring Enterprises - Retail (USD) - Vendor	analysis	ready	Analysis performed	view	Alaris	
Boring Enterprises - Retail (USD) - Vendor	analysis	ready	Analysis performed	view	Alaris	
ALARIS TEST - LCR (USD) - Client	auto	ready	Rates closed: 3; Valid rate...		Alaris	
ALARIS TEST - LCR (USD) - Client	choice	aborted	Canceled by user		Alaris	
Mensajes Largos Ltd. - LCR (EUR) - Client	choice	error	ORA-29532: Java call term...		Alaris	

Tasks

The table contains the following columns:

- *Import mode*: possible values are:
 - *auto*: import without preview, using the *Error type level* settings of the *Auto rate import* (see [SMS\Rates\Auto rate import](#) ²³⁹ for more detail)
 - *import*: import without a preview of results
 - *choice*: analysis with possibility to import rates into the product
 - *analysis*: preview of import results without the actual import
- *Status*: possible values are:
 - *ready*: the task is complete
 - *new*: the task has just been created
 - *error*: the task resulted in error
 - *aborted*: the task has been canceled by the user or the System
 - *pending*: the status is currently out of use
 - *scheduled*: the task is scheduled for a specific time
 - *waiting*: the task is not yet completed by the user (e.g., the user has previewed rate results but has not applied them)
- *Summary*: the task result. Click on the tasks that resulted in import to view the summary, in the format: *Valid rates found in file: 1; New rates added: 10; Existing rates expanded/closed: 0; Rates deleted: 0*
- *Details*: contains the view hyperlink that opens a preview of rates illustrated below (for the *choice* and *analysis* import modes). Click  **Back** to return to the previous page; click  **Export to Excel** to view the table in MS Excel. Click  **Show summary** to view rate import statistics.

Preview of rates						
◆	MCC MNC	Dial code	Country name	Net name	Rate new	
	Text mask	Text mask	Text mask	Text mask	Min.	Max.
	000000					944.00000
	202		Greece	All networks		1 008.00000
	202001		Greece	Cosmote		112.00000
	202005		Greece	Vodafone Greece		111.00000
	202010		Greece	Wind Hellas		113.00000
	204		Netherlands	All networks		1 009.00000
	204002		Netherlands	TELE2 Nederland B.V.		785.00000
	204003		Netherlands	Blyk N.V (Elephan Ta		10 515.00000
	204004		Netherlands	Vodafone Libertel BV		22.00000

Preview of rates

Status	Rate count
Total rates in file	21
New	21
Closed	0
Increased	0
Decreased	0
Same	0

Summary of imported rates

9.3.4.2 File upload

To upload a new file for rate import, click the  **Upload file** button on the bottom toolbar of the *Rate import* page. In the *Upload file* window, specify the carrier and product for the rate import and add the ratesheet file to upload (must be in the .csv, .xls or .xlsx format).

Upload file X

File to import*: Browse

Carrier*: Berried Alive v

Product: WholeSale (USD) - Vendor v

X Cancel
Upload

Upload file window

When through with defining the imported file, click  **Upload** to upload the file or  **Cancel** to discard the settings.

9.3.4.3 Import settings menu

Click on the uploaded file in the *Select file* table to activate the *Import settings* view located to the right of the table.

Import settings

Selected file: **SMS AGGREGATOR EUR EXTERNAL.xlsx**

Parser*: Internal library v

Direction: Client Vendor

Carriers: Boring Enterprises v

Product*: Retail (USD) - Vendor v

Import settings view

The *Import settings* view contains the following parameters:

- *Selected file* (not editable): indicates the name of the selected uploaded ratesheet

- *Parser*: parser for converting of the source file into the System structure. The default (and recommended) value is *Internal library*; try other values only if the output file is illegible
- *Direction (Client or Vendor)*: defines whether to import the selected ratesheet to a client or vendor product

NOTE: It is possible to limit the user rights to importing only client or only vendor products (See [Administration\Users](#)¹⁰⁹¹, *Roles* section of the *Add/Edit* tab, *SMS rate import* right)

- *Carriers*: defines the carrier for rate import (by default is set to the carrier selected during the file upload)
- *Product*: defines the selected carrier’s product for rate import

When through with defining the import settings, click  to open the *Parser settings* page.

NOTE: If opening the page takes longer than ten minutes, the System aborts the operation. It means that there may be a problem with the file.

9.3.4.4 Rate sheet parsing

Once the selected rate sheet file is opened for parsing, the System shows a preview of its contents the way it looks in MS Excel. Everything is shown "as is" – all cell contents and the overall file structure (sequence and naming of columns and worksheets) is preserved at this stage.

Classic Pricelist Aggregator							
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	MCC
1	ISO Country Code	Country	MCC	Destination Cou...	Destination Ope...	Comments	MCC
[2]	AF	206	MNC	Afghanistan	Afghan Telecom...	N/A	412
3	AF	206	Rate	Afghanistan	Afghan Wireles...	N/A	412
4	AF	206	Start date	Afghanistan	Afghanistan	Afghanistan Op...	412
5	AF	206	End date	Afghanistan	Etisalat Afghani...	N/A	412
6	AF	206	Net name	Afghanistan	MTN Afghanista...	N/A	412
7	AF	206	Net status	Afghanistan	Telecom Develo...	N/A	412
8	AL	18	Country name	Albania	Albania	Albania Operato...	276
9	AL	18	Country dial code	Albania	Albanian Mobile ...	N/A	276
10	AL	18	Rate note	Albania	Eagle Mobile	N/A	276
11	AL	18		Albania	PLUS Communic...	N/A	276
12	AL	18	266	Albania	Vodafone Albania	N/A	276

Source file preview

The user can view the column headers and the data that may be above the rates (some important comments are often placed there by vendors).

NOTE: Images from the original rate sheet file are not displayed.

To make the System able to parse the file, define the column types by clicking on the headers of the table, so that the System knows where to take dial codes, rates etc. You do not have to define all columns in the original file – many of them contain auxiliary data that is not required by the rate import process. The following column types are available:

- *Sender e.212*: the sender E212 code. The value is available only if the product into which the rates are exported has the selected checkbox *Use sender MCCMNC based rates* (see [Carriers\Products](#)¹⁰³¹ for more detail)

- *e.212*: up to 3 columns containing the E212 code. All the parsed MCCMNCs in different columns will be treated as separate MCCMNCs and imported as different rates. Only numeric values are eligible to be imported in those columns. E.212 records with alphanumeric content will be ignored
- *MCC*: MCC code column, in case E212 codes are split in two columns in the file (if the *MCC* column is selected, the *E212* column becomes unavailable and the *MNC* column shows up on the menu)
- *MNC*: MNC code, in case E212 codes are split in two columns in the file (only available if the *MCC* column is selected)
- *Rate*: termination price for the E212 code (the rate currency is defined by the currency of the partner account the product belongs to)
- *Start date*: effective date/time for the imported rates (if provided as a column in the file)
- *End date*: expiration date/time of imported rates (if provided as a column in the file)

NOTE: It is possible to import consecutive rates for one MCCMNC. For example, if a partner sends two rates for the same MCCMNC with different and non-overlapping active periods (for instance, from 2016.01.01 to 2017.02.28 and from 2017.03.01 to 2099.01.01), the System will be able to process such a file without warnings or errors, and both rates will be imported.

- *Net name*: name of the mobile network the E212 code belongs to
- *Net status*: network availability
- *Country name*
- *Country dial code* (maximum dial code length is 16 digits; longer codes will be trimmed)
- *Rate note*: arbitrary comments
- *E212*: for cases when full E212 codes are given in one column rather than with the MCC and MNC split to two columns (if the E212 column is selected, the *MCC* column becomes unavailable)

NOTE: The only required columns are *MCC/MNC* (or *E212*) and *Rate*.

SMS rate file import settings

Presets: Load Save ✕

Effective from cell: Sheet: 1, Row: 1, Column: 9

Effective from*:

Rates come into effect after days

Effective till*:

Increase date:

Increases come into effect after days

Replace effective dates violating agreement

Decrease come into effect after days

New come into effect after days

Close come into effect after days

Close type*:

Do not close empty or zero rates

Close date*:

Close rates days after today

Timezone*:

Date format*:

Set network price as the highest of its MCCMNCs

Country list:

Currency rate:

MCCMNC converting rules:

SMS rate file import settings

Once the column headers are defined, configure the parameters in the SMS rate file import settings panel (the parameters are disabled if the data is already contained in the preview table).

- *Active sheet*: select the spreadsheet that will be parsed (in case the original MS Excel file contains several spreadsheets)
- *Start row*: define the first row with the rate data, so that the System ignores everything that is above the rate table in the file. Check fix row to prevent the Start row value from changing when you navigate between rows in the preview
- *Effective from cell*: the field serves to select a specific cell in the rate sheet file, from which the System will take the *Effective from* date. This feature allows import of rate sheets that contain no

Effective from column but instead have the date in a specific field in the file. Click  and select the appropriate cell. The cell coordinates will appear in the *Effective from cell* field. The date format is verified using the template from the *Date format* field. See also the [Alaris YouTube](#) video

- *Effective from*: select the date or indicate the number of days in the following parameter
- *Rates come into effect after ___ days* (active if the *Effective from* field is empty): the parameter is filled in automatically with the values from *In/Out decrease notification, days* and *In/Out new rate notification, days* of the partner's agreement if the values of the two fields coincide (*In* for client products, *Out* for vendor products). If the fields have different values, the parameter is left blank
- *Effective till*: use the default value
- *Increase date*: select the date or indicate the number of days in the following parameter
- *Increases come into effect after ___ days* (active if the *Increase date field* is empty): the parameter is filled in automatically with the values from *In/Out increase notification, days* of the partner's agreement (*In* for client products, *Out* for vendor products)
- *Replace effective dates violating agreement*: when selected, the *Start date* from the file column is ignored if in violation of *In/out increase/decrease/new rate/close rate notification, days* ([Carriers\Agreements](#)¹¹⁷). The ignored date will be replaced by a correct date (specified in the parameters that appear once the checkbox is selected: *Decrease/New/Close come into effect after ___ days*).
- *Close type*: select the appropriate value:
 - *Update only rates for fully matching breakouts*: matching rates will be updated, and all other rates will remain unchanged
 - *Close non-matching breakouts*: close all non-matching rates
 - *Full country*: close all rates for the countries whose MCCMNCs are not in the rate sheet provided that at least one MCCMNC of the country is in the sheet. Note that if no network of a country is mentioned in the rate sheet, no change will be applied to this country. Example: if a product has active rates to the following networks:
 250001
 250002
 250003
 470001
 470002
 Once a file with the MCCMNCs 250001 and 250002 in the *Full country* mode is uploaded, MCCMNC 250003 will be closed (since networks belonging to MCC 250 are in the file while 250003 that belongs to the same country - is not). MCCMNCs 470001, 470002 will not be changed or closed since no MCC 470 is present in the file.
- *Do not close empty or zero rates*: when enabled, if the *Rate* field is empty or contains a 0 or "-" (dash) value, such rate will be ignored instead of being closed by the *Effective from* date

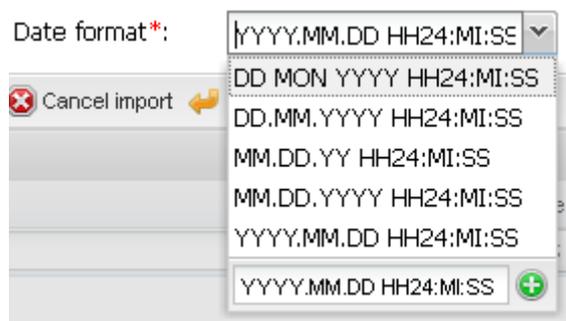
NOTE: Check the parameter *Price values to be considered as blocked* ([System settings\SMS rates](#)⁶⁶). Its default value is "-" (dash), which means that rates containing "-" (dash) will be blocked. To ignore such rates, delete the "-" (dash) value from the parameter.

- *Close date*: select the date or indicate the number of days in *Close rates days after today*

- *Timezone*: define the partner time zone.

NOTE: It is good practice to use the GMT time zone in order to eliminate possible time zone discrepancies.

- *Date format*: format of the effective dates if they are provided in the file - i.e. if the *Start date* and *End date* columns are defined. If required, set up a custom format in the bottom field of the drop-down list of available formats.



Date format

- *Set network price as the highest of its MCCMNCs*: when selected, the price for the entire network is set as the highest of the network's MCCMNCs
- *Country list*: define the list of countries to import or ignore rates belonging to these countries
- *Currency rate*: currency exchange rate index. The System will multiply the rate by the value set in this parameter - for example, if the value is 1, the imported rate will remain the same. See also the [Alaris YouTube](#) video
- *MCCMNC converting rules*: configure MCCMNC translation rules. The rules allow using regular expressions to determine how source MCCMNCs must be changed. Find out more about the feature in the [Alaris YouTube video](#)

NOTE: The rules are applied after e.212 unification (codes are expanded to 6 digits by adding leading zeros to the MNC when necessary). For example, to convert 722031 to 723310 add the following row: 722031;723310. To replace the MCC code, use the expression of the following type: 723(.*) ;725\1 In this example, MCC 723 will be replaced with 725.

NOTE: In case of a parsing error or conflicting effective periods, the rate effective dates are defined in the following order:

For rate increases: 1) the date from the *Increases come into effect after* parameter 2) the date from the *Increase date* parameter

For new rates/rate decreases: 1) the *Start date* column value of a specific rate in the file 2) the value of the *Effective from* cell field 3) the date from the *Rates come into effect after X days* field 4) the date set in the *Effective from* field

The rate close date is defined by the *Close date* parameter (provided that the Close type field is also set)

Click  **Check** to check the file before the actual import. To clear the parser settings click  **Reset**. To cancel and return to the previous page, click  **Cancel import**.

The file import settings can be saved as a preset. Presets allow quick access to preconfigured settings and are also used in automatic import of rate sheets (see [SMS\Rates\Auto rate import](#)²³⁹ for more detail). Type the new preset name in the *Presets* field at the top of the panel or select an existing one

from the drop-down list and click  Save. To open a preset, select it in the drop-down list and click  Load.

Presets: temp   Load |  Save  Delete

Presets toolbar

9.3.4.5 Preview of rates

Once the System has processed the rate file (and before the new rates are applied), it shows a preview of the parsed rates and a list of errors that must be shown to the user before committing the new data to the database. The *Preview of rates* is illustrated below.

Preview of rates						
	e212	Dial code	Country	Net	Rate	
					Min.	Max.
						
	202		Greece	All networks		0.03556
	202001		Greece	Cosmote		0.03448
	202005		Greece	Vodafone Greece		0.03448
	202010		Greece	Wind Hellas		0.01750
	204		Netherlands	All networks		0.06283
	204002		Netherlands	TELE2 Nederland B.V.		0.01951
	204003		Netherlands	Blyk N.V (Elephan Ta		0.06283

Preview of rates

Errors			
R...	Error name	Error info	
	All 		
45	e.212 uniqueness violated	This record has e.212 code 505 w...	
72	e.212 code not numeric	Supplied e.212 code: N/A	
150	Rate for network withou...	Supplied e.212 code: 237006	
152	e.212 has invalid length	Supplied e.212 code: 00	
159	e.212 uniqueness violated	This record has e.212 code 302 w...	
232	Rate for network withou...	Supplied e.212 code: 467	
282	Rate for network withou...	Supplied e.212 code: 750	
286	e.212 uniqueness violated	This record has e.212 code 54200...	

Errors

The *Errors* panel contains the following columns:

- *Row number*: the row in the original MS Excel rate sheet where the error is found
- *Error name*: error message type. Possible values are:
 - *e212 code not numeric*
 - *e212 code has invalid length*

- *e212 uniqueness violated*: one and the same E212 code is present in the file more than once. One of the possible reasons is that some vendors send E212 codes where the MCC code consists of 3 digits as expected, but the MNC code may be either empty or contain 1 or 2 digits (but not 3). Otherwise, there may be an E212 code having 3, 4 or 5 digits in it. In case of empty MNC or a 3-digit E212 code, the System leaves it the way it has arrived, as this may be a case when an entire country is sold flat-rate. In case of a 1- or 2-digit MNC it adds extra zeros (2 or 1 respectively) at the beginning of the MNC, so that it has 3 digits in it. For example, the E212 codes 2501 and 25001 will be converted to 250 001 (while 250 will remain 250). In case the regular 6-digit MCCMNC code is also present in the file besides its “shortened” cognates (e.g. 250001 vs. 25001), the outcome of such code conversion will be two identical E212 codes – and that will result in error
- *Rate parsing error*

NOTE: If a rate parsing error is found (for example, a rate is not numeric), other parsing errors are not checked and not displayed in the list.

- *Rate for network without dial codes*: the MCC/MNC code does not exist in the E212 reference book; alternatively, the MCC/MNC code exists but is not linked to any dial code
- *Error info*: message details

Send the error descriptions to the partner for corrections. In case of reference book-related errors, make the necessary amendments in the original MS Excel file and upload it back to the System.

After the import messages are reviewed, the user can either cancel the import or apply the new rates.

Click  and select one of the following options:

- *Auto*: import without preview, using the Error type level settings of the Auto rate import
- *Analysis*: preview of import results without the actual import
- *Choice*: manual import with a preview of results
- *Import*: import without a preview of results

NOTE: All errors and warnings will be ignored in the preview and imported file.

The user is then returned to the [SMS\Rates\Rate import](#) ⁽²⁵⁹⁾ page; the task appears in the *Tasks* panel (see the figure above).

NOTE: If no rows were found suitable for import, the file status is marked *Not imported*. See also the [Alaris YouTube video](#).

To see the preview of import results (*Choice* and *Analysis* options only) click *view* in the *Details* column.

SMS (20190329184401267)(HKG_HGC-GBR_DIGT)(PL)(EUR)(DIGI-TOUCH-SMS-A2P)(1)FinalPL.xlsx							
◆	MCCMNC	Dial ...	Country name	Net name	Rate new		Rate old
🔍	Text mask	Text m	Text mask	Text mask	Min.	Max.	Min
	202		Greece	All networks	0.03270		-
	202001		Greece	Cosmote	0.80000		0.80000
	202001		Greece	Cosmote	0.03270		0.80000
	202005		Greece	Greece	0.70000		0.70000
	202005		Greece	Greece	0.03110		0.70000
	202007	30	Greece	sa_test	0.50000		0.50000
	202009		Greece	Wind Hellas	0.01200		0.01200
	202009		Greece	Wind Hellas	0.03270		0.01200

Import results

NOTE: The *Warning* column of the import results page contains warning messages. For example, the *Rate is blocked* message is displayed for rates that contain a zero price. See also the [Alaris YouTube](#) video.

The *Analysis* tab sheet (that opens if the *Analysis* option was selected) contains the  **Show summary** button that displays the details of the changes (*Total rates / New / Increased / Decreased / Closed / Same*).

To view the summary of import results, click the appropriate cell in the *Summary* column.

Valid rates found in file: 1017; New rates added: 0; Existing rates expanded/closed: 0; Rates deleted: 0.

Summary of import results

9.3.5 Rate compilation

The *SMS\Rates\Rate compilation* page serves to generate new rate plans for clients based on available vendor rates and the desired markup. It is similar to the [Rate generator \(SMS\)](#) report, but additionally provides extra features - for example, enables the user to apply newly created rate plans or export them to a MS Excel file.

Recent task list

Task ID	Job created	Client product	Status
TASK74980	2017.09.12 14:51:27	PocoDinero Enterprises - Wholesale...	ready

New compilation / Task details

Client product: **PocoDinero Enterprises - Wholesale (EUR) - Client**

MCCMNC list: **Selected: All**

Cost base: **Least cost**

N price in LCR list: **1**

Rate within one product and MCCMNC: **Average**

Rates active on: **2017.09.12**

Vendor scope: **All**

Vendor list: **Selected: All**

Absolute markup: **0.01**

Relative markup: **10**

User longer matches for client MCC: **No**

Calculate MCC rate as highest of its networks: **No**

Allow increases: **Yes**

Allow decreases: **Yes**

Stats parameters

Gather stats from: **2017.09.05**

Gather stats to: **2017.09.12**

Volume greater than:

ASR greater than:

DLR greater than:

Rate compilation table

MCCMNC	Country	Network	Client rate		Cost base		Markup		New rate		Rate cha...		C
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
202	Greece	All networks	0.01980	0.00060	0.01600	0.01660	-0.00320						
202001	Greece	Cosmote	0.00610	0.00060	0.01600	0.01660	0.01050						
202005	Greece	Vodafone Greece	0.00880	0.00070	0.01700	0.01770	0.00890						
202009	Greece	Wind Hellas	0.01660	0.00060	0.01600	0.01660	0.00000						
202010	Greece	Wind Hellas	0.01810	0.00060	0.01600	0.01660	-0.00150						
204	Netherlands	All networks	0.07560	0.00090	0.01900	0.01990	-0.05570						
204002	Netherlands	TELE2 Nederland B...	0.01950	0.00090	0.01900	0.01990	0.00040						
204004	Netherlands	Vodafone Libertel BV	0.02140	0.00060	0.01600	0.01660	-0.00480						
204006	Netherlands	Barablu Mobile	0.02180	0.00090	0.01900	0.01990	-0.00190						
204007	Netherlands	Teleena Holding B.V.	0.01490	0.00080	0.01800	0.01890	0.00390						
204008	Netherlands	KPN B.V.	0.01750	0.00060	0.01600	0.01660	-0.00090						
204009	Netherlands	Lycamobile	0.01890	0.00060	0.01600	0.01660	-0.00230						
204010	Netherlands	KPN B.V.	0.01690	0.00090	0.01900	0.01990	0.00300						

Involved vendor breakouts

Vendor product	MCCMNC	Rate	ASR	DLR	Volume
Unaudited Systems - Wholesale (EU...	202009	0.01900	0.00000	0.00000	
Glasgow Rangers LTD - Wholesale (...	202	0.01910	0.00000	0.00000	
LukoMore Telecom - Chain - Stands...	202009	0.01940	0.00000	0.00000	
Award Wieners - Wholesale (EUR) - ...	202009	0.01980	0.00000	0.00000	
Diogenes Capacity Co - Wholesale (...	202009	0.02010	0.00000	0.00000	
PocoDinero Enterprises - Wholesale...	202009	0.02320	0.00000	0.00000	
Dragon Telecom - Wholesale (EUR) ...	202009	0.02430	0.00000	0.00000	
Empresa Quebrada Pte. - Premium ...	202009	0.02470	0.00000	0.00000	
Brexit Telecom - Premium (EUR) - V...	202009	0.02860	0.00000	0.00000	
SoloVesi - Standard (EUR) - Vendor	202009	0.02880	0.00000	0.00000	
Empresa Quebrada Pte. - Whoesal...	202009	0.02880	0.00000	0.00000	
Gondor Telecom - Gluck - Whoesal...	202009	0.02890	0.00000	0.00000	
Brexit Telecom - Wholesale (EUR) - ...	202009	0.03020	0.00000	0.00000	
No Liamar Oy - Wholesale (EUR) - ...	202009	0.03150	0.00000	0.00000	
Hamlet Telecom Co - Wholesale (E...	202009	0.03270	0.00000	0.00000	
SoloVesi - Premium (EUR) - Vendor	202009	0.03500	0.00000	0.00000	
Boring Enterprises - Retail (USD) - V...	202	0.03556	0.00000	0.00000	
LauderGale Port Corp - Wholesale (...	202	0.03790	0.00000	0.00000	

Rate compilation page

The page consists of four parts:

- The top left section is a table of created/completed tasks
- The top right section contains the *New compilation* tab sheet that serves to create a new task, and the *Task details* tab sheet that provides information on an existing task
- The bottom left section is a table of rates generated for a selected task: source data (MCCMNC, price, country, network) as well as compilation output (cost base, markup, rate change, warnings). The user can sort the table by any column.
- The bottom right section is the *Involved vendor breakouts* table containing a list of vendors that were considered for a specific MCCMNC (breakout) for the rate selected in the bottom left section

NOTE: The section shows only actual rates and does not include rates with the **BLOCKED** rate note.

New compilation		Task details	
Client product*:	PocoDinero Enterprises - Premi	Stats parameters	
Apply new rates to*:	Active destinations	Gather stats from*:	2018.10.22
Activity threshold*:	3000	Gather stats to*:	2018.10.29
MCCMNC list:	Selected: All	Volume greater than:	
Cost base:	Least cost	ASR greater than:	
N price in LCR list*:	1	DLR greater than:	
Rate within country*:	Average	<input checked="" type="checkbox"/> Ignore statistic filters if no suitable vendors	
Rate within one product and MCCMNC*:	Average		
Rates active on*:	2018.10.29		
Vendor product scope:	All		
Vendor product list:	Selected: All		
Absolute markup:	0.01		
Relative markup:	10		
<input type="checkbox"/> Use longer matches for client MCC			
<input type="checkbox"/> Calculate MCC rate as highest of its networks			
<input checked="" type="checkbox"/> Allow increases			
<input checked="" type="checkbox"/> Allow decreases			
Presets:		Load	Save
		Delete	Reset
			Run

New compilation

The *New compilation* tab sheet contains the following parameters:

- *Client product*: the source rate plan from which the list of MCCMNCs and prices is obtained

NOTE: MCCMNCs present in the selected client product will be chosen as the basis for rate compilation. If the product has no rates, no rates will be created as a result of rate compilation.

- *Apply new rates to*: serves to select rates to be used based on the activity of destinations. Possible values include:
 - *All destinations*: all rates are selected
 - *Active destinations*
 - *Inactive destinations*. When options *Active destinations* or *Inactive destinations* are selected, the *Activity threshold* field appears that serves to indicate the threshold number of SMS for the destination. In this way the user can offer its partners better rates for new destinations while keeping the active destinations as they are. Find out more in the [Alaris YouTube video](#)
- *MCCMNC list*: contains filters by country/network
- *Cost base*: defines the calculation principle of termination base cost. Values include:

- *Least cost*: vendor rates are sorted from the least expensive to the most expensive and the rate generator picks the Nth record from the list based on the setting *N price in LCR list*
- *Average*: the System takes all qualifying vendor's traffic and defines the average weighed cost of one SMS as the base cost of termination
- *Weighted average*: the System uses statistics to determine vendor cost for the period specified by the parameters *Gather stats from/to* and calculates an average based on the amount of traffic sent to each of the vendors
- *Rate within country*: serves to select how rates within a country must be treated. Possible values are:
 - *Default*: assign each network its own rate
 - *Minimum*: assign the minimum rate to all networks within a country
 - *Average*: assign the average rate to all networks within a country
 - *Maximum*: assign the maximum rate to all networks within a country
- *Rate within one product and MCCMNC*: aggregating function for multiple vendor rates that share the same MCCMNC but have different dial codes. Possible values are:
 - *Minimum*
 - *Average*
 - *Maximum*
- *Rates active on*: effective date for client and vendor rates
- *Vendor scope*: select *Inclusive/Exclusive list*
- *Vendor list*: select applicable vendors
- *Absolute/Relative markup, %*: value added to the cost base (in client currency or percentage of the base respectively). When both are used, relative markup is added first

NOTE: The *Relative markup, %* field value must be set as an integer (for example, 50). The value is treated as percentage.

- *Use longer matches for client MCC*: check the flag if the client offers a flat rate for an MCC and the vendor offers multiple rates for the MCC. For example, the client offers 202 for Greece and the vendor has rates for 202001, 202002 etc. In case of multiple matches for the client MCC (for example, 202001, 202002 etc.), the System will pick the match with the highest vendor rate.
- *Calculate MCC rate as highest of its networks*: when this checkbox is selected, the System picks the highest MCCMNC rate within an MCC. Example: suppose the vendor rate for MCC 250 is 0.1 while for MCCMNC 250001 it is 0.2. This option will change the vendor rate for MCC 250 to 0.2
- *Allow increases/decreases*: the System generator is allowed to change price to more/less expensive than the original rate
- *Stats parameters*:
 - *Gather stats from/to*: period to calculate vendor statistics
 - *Volume/ASR/DLR greater than*: filter involved vendors by their stats values

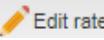
- *Ignore statistic filters if no suitable vendors:* when selected, and if *ASR greater than*, and/or *DLR greater than* and/or *Volume greater than* values are set and no suitable vendors have been found for them, all available vendors are selected. Learn more in the [Alaris YouTube video](#)

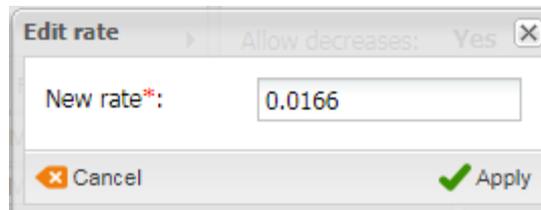
Click  to generate the rates. A new task will appear in the *Recent task list* section; the task details will be shown in the *Task details* tab sheet.

The *Templates* toolbar at the top of the *New compilation* tab sheet enables the user to create, upload and delete pre-set templates:

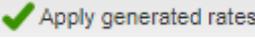


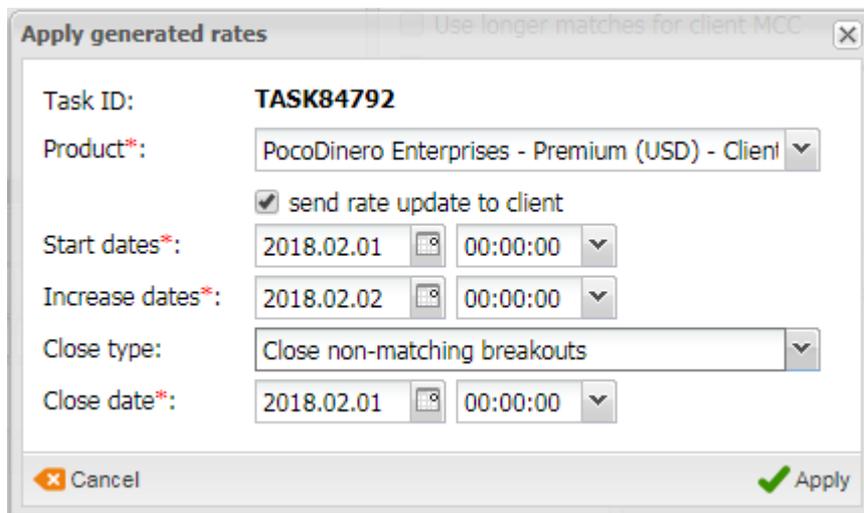
Presets toolbar

Click  to edit the rate selected in the bottom left section, or double-click on the record. Enter the appropriate value in the dialog that appears and click .



Edit rate dialog

Click  to apply the rates created in the task that is selected in the *Recent task list* table.



Apply generated rates dialog

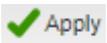
In the dialog that appears, specify the appropriate parameters:

- *Product:* select the product to which the rates will be applied
- *Send rate update to client:* when selected, an export task is created and the rate sheet is sent to the partner carrier to inform of the changes, with the *Export type = changes pending at* and the *Start*

date equal to the earliest of the dates set in the fields *Start dates* and *Increase dates* of the *Apply generated rates* dialog. See the feature overview in the [Alaris YouTube video](#)

NOTE: In order to receive notifications, the partner carrier must have the *Default rate change emails* field configured in [Carriers\Agreements](#)^[117].

- *Start dates*: start date for the new rates
- *Increase date*: effective date for increased rates
- *Close type*: select one of the values:
 - *Update only rates for fully matching breakouts*: matching rates will be updated, and all other rates will remain unchanged
 - *Close non-matching breakouts*: close all non-matching rates

Click  to save the settings.

NOTE: Outdated rate generation tasks are removed every night (only the last 30 tasks are kept in the System) in order to ensure quick execution of tasks.

9.3.6 Rate management tools

Two important rate management tools - LCR Analysis and Rate generator - are implemented in the [Reports](#)^[275] section. Refer to [Reports\LCR Analysis \(SMS\)](#)^[194] and [Reports\Rate generator \(SMS\)](#)^[207] for more detail.

9.4 Reference books

In the SMS industry charges are typically based not on “standard” E164 dial codes, but on a special type of codes intended to address mobile networks rather than geographic areas. That special standard is called E212. On a large scale it brings forward two major items extensively used in the mobile communications industry:

- MCC: mobile country code, a 3-digit code of the country the target mobile network is located in. There may be more than one MCC per country
- MNC: mobile network code, a 2- or 3-digit code of the target mobile network

MCC and MNC codes are used together as E212 codes. In the inter-carrier settlements there may be cases when a particular E212 breakout traded by a particular carrier has no MNC – meaning that an entire country is bought or sold flat-rate.

While interconnect rates are usually based on E212 codes, SMS messages contain only E164 numbers of addressed mobile subscribers. Therefore, the ability to match E164 numbers with the respective E212 codes is required to correctly estimate the SMS cost for the customer and vendor. For that purpose the System has a reference book that stores E212 E164 code combinations, as well as mobile network names and country names for E212 codes. All rating- and routing-related procedures are dependent on this reference book, so it should always contain complete and accurate data to avoid billing mismatches.

NOTE: The System comes with a basic version of the reference book. It is recommended to keep it regularly updated.

The SMS/Reference books section consists of three pages – *Short Code Reference Book Editor*, *E212/E164 Reference Book Editor* and *E212/E164 Reference Book Import*.

9.4.1 Short code reference book editor

The short code reference book editor allows configuring short code/carrier matches to enable two-way messaging. When a mobile originated SMS is received from a subscriber, the System uses the reference book to look up which carrier the short code belongs to, and directs the SMS to this carrier.

The *Short code reference book editor* page consists of two panels. The left panel contains the reference book table; the right panel shows the *Add* and *Edit* tabs.

Sender MCC	Dest. number	Text pattern	Client product	SMS POI	Vendor product
Text mask	Text mask	Text mask	PocoDinero Enterprises - 111 (USD) - C	All	All
182	01928376452	.topsecret1.*	PocoDinero Enterprises - 111	-	2way Vendor - 2way
777	182739405	.topsecret.*	PocoDinero Enterprises - 111	-	-

Reference book table

Add
 Edit

Filters

Sender MCC*:

Dest. number*:

Text pattern:

Client info

Client product*:

SMS POI:

Note:

Vendor info

Vendor product:

Add tab

The *Add* tab contains the following parameters:

- *Sender MCC*: MCC of MO's sender ID (which is the same as the destination address of the relevant original MT message). The match between the number and the MCC is found based on the e.212/e.164 reference book
- *Dest. number*: destination address of the MO message (the same as the sender ID of the original MT message)

Usage example: Suppose an MT message has been received with sender ID 5555 and destination address 541135447500. The Sender ID of the corresponding MO message will be 541135447500 and destination address - 5555. Suppose the longest match for 541135447500 is MCC 722. In this way, an entry with the following parameters to route the MO message to the client product *Test client - WholesaleMO* will be created:

Sender MCC: 722

Dest. number: 5555

Client product: Test client - WholesaleMO

- **Text pattern:** the field is used in case a short code is shared by several carriers, each having their own text code; specify the text code in this field
- **Client product:** select the appropriate product in the drop-down list
- **SMS POI:** serves to add the SMS POI to which the MO messages will be sent. If the field is left blank, the appropriate POI is selected by the routing module
- **Note:** any arbitrary details. Learn more about the feature in [Alaris YouTube video](#)
- **Vendor product:** allows routing MO messages based on the vendor from which the message was received. See also the [Alaris YouTube video](#)

Fields marked with an asterisk (*) are required. When through with defining the parameters, click

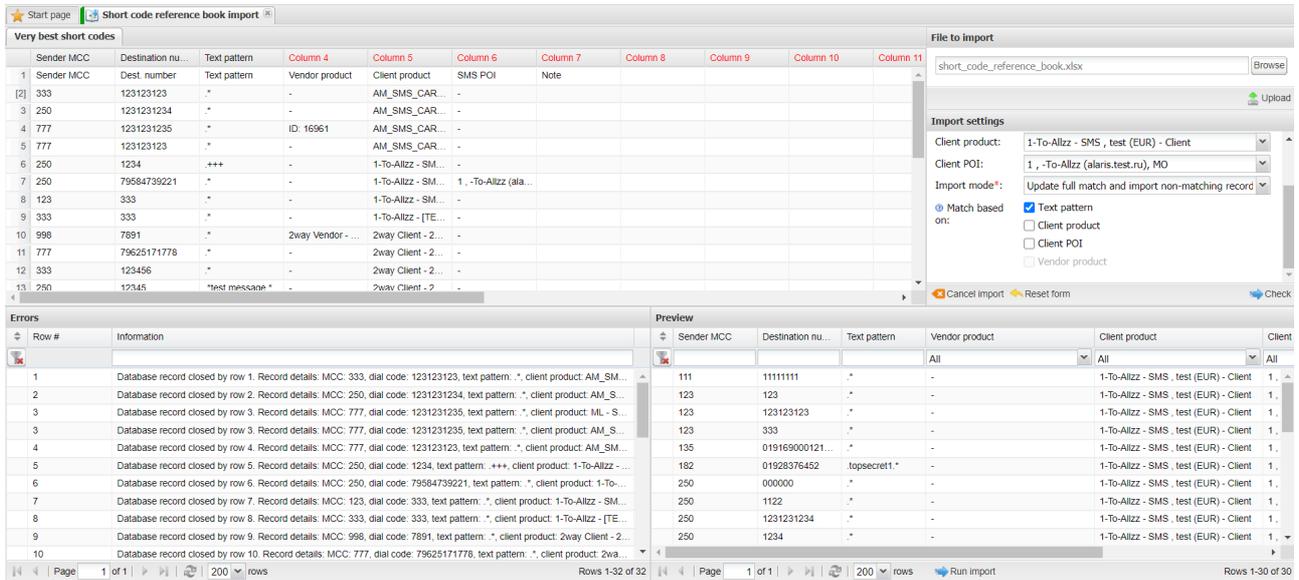
 **Submit** to save the record or  **Reset** to discard the settings. Click  **Delete** to remove a record

(available in the *Edit* tab). Click  **Clone** to create a copy of a record selected in the table (the button opens the *Add* tab with the parameters of the record. Edit them as appropriate and click  **Submit**.

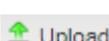
NOTE: If, during MO routing, no product matching the MCC from the reference book was found, the System searches for the product by the MCC 777 ("Rest of the world").

9.4.2 Short code reference book import

SMS\Reference books\Short code reference book import interface serves to upload short codes from a file. The page contains four sections: file parsing panel, *Import settings*, *Errors* and *Preview*.



Short code reference book import

Use the  **Browse** button to select the file on the local PC and click  **Upload**. The file must contain at least two columns: *Sender MCC* and *Destination number*.

Import settings

Active sheet*:

Start row: fix row

Vendor product:

Client product:

Client POI:

Import mode*:

Match based on:

- Text pattern
- Client product
- Client POI
- Vendor product

Import settings

Fill the appropriate parameters in the *Import settings* panel:

- *Active sheet*: select the spreadsheet of the uploaded file that will be imported
- *Start row*: define the first row of the reference book data, so that the System ignores everything that is above the rate table in the file. Check *fix row* to prevent the *Start row* value from changing when you navigate between rows in the preview
- *Vendor product*
- *Client product*: select a client product that has an SMS POI with the *MO* service type
- *Client POI*
- *Import mode*: possible values are:
 - *Update full match and import non-matching records*: matching records will be updated (for example, if *Client product* is selected in the *Match based on* field below, then the *Notes*, *Vendor Product* and *Text pattern* fields will be updated). If there is no matching record, it will be added to the reference book as a new one
 - *Delete full match and import non-matching records*: select to remove matching records and add the ones that do not have matches in the reference book
 - *Full replacement*
- *Match based on*: serves to determine which fields are used to match new records with existing ones and also to search for duplicates within the imported file. By default the System uses the *MCC* and *Destination number* fields to find matches but can be extended by the following fields:
 - *Text pattern*
 - *Client product*
 - *Client POI*
 - *Vendor product*

The top left panel shows a preview of the short code reference book the way it looks in MS Excel. Everything is shown "as is" – all cell contents and the overall file structure (sequence and naming of columns and worksheets) is preserved at this stage.

Very best short codes							
	Sender MCC	Destination nu...	Text pattern	Column 4	Column 5	Column 6	Column 7
1	Sender MCC	Dest. number	Text pattern	Vendor product	Client p		Note
[2]	333	123123123	.*	-	AM_SM		
3	250	1231231234	.*	-	AM_SM		
4	777	1231231235	.*	ID: 16961	AM_SM		
5	777	123123123	.*	-	AM_SM		
6	250	1234	.+++	-	1-To-All		
7	250	79584739221	.*	-	1-To-Allz		

File preview

In the file preview, set the appropriate column names by clicking on the headers. The required columns are *Sender MCC* and *Destination number*. If *Match based on* is set to *Text pattern*, the *Text pattern* column must also be set.

Errors	
Row #	Information
5	Database record closed by row 5. Record details: MCC: 250, dial code: 1234, text pattern: .+++ , client product: 1-To-Allzz - ...
6	Database record closed by row 6. Record details: MCC: 250, dial code: 79584739221, text pattern: .*, client product: 1-To-...
7	Database record closed by row 7. Record details: MCC: 123, dial code: 333, text pattern: .*, client product: 1-To-Allzz - SM...
30	Potential ambiguity detected. Row 30 was skipped as a duplicate for row 3.

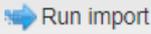
List of errors

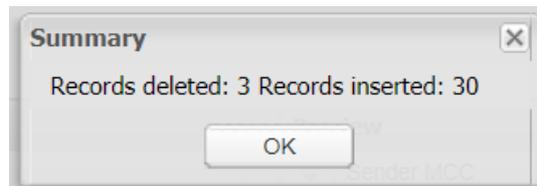
Click  **Check** to to check the file before the actual import. To discard the settings, click  **Reset**. To cancel, click  **Cancel import**. If any errors are found, they are displayed in the *Errors* panel.

Preview							
	Sender MCC	Destination nu...	Text pattern	Vendor product	Client product	Client	
				All	All	All	
111	11111111	.*	-	1-To-Allzz - SMS , test (EUR) - Client	-		
123	123	.*	-	1-To-Allzz - SMS , test (EUR) - Client	-		
123	123123123	.*	-	1-To-Allzz - SMS , test (EUR) - Client	-		
123	333	.*	-	1-To-Allzz - SMS , test (EUR) - Client	-		
135	019169000121...	.*	-	1-To-Allzz - SMS , test (EUR) - Client	-		
182	01928376452	.topsecret1.*	-	1-To-Allzz - SMS , test (EUR) - Client	-		
250	000000	.*	-	1-To-Allzz - SMS , test (EUR) - Client	-		
250	1122	.*	-	1-To-Allzz - SMS , test (EUR) - Client	-		
250	1231231234	.*	-	1-To-Allzz - SMS , test (EUR) - Client	-		
250	1234	.*	-	1-To-Allzz - SMS , test (EUR) - Client	-		

Page 1 of 1 | 200 rows | Run import | Rows 1-30 of 30

Preview

The bottom right section contains a preview of records to be updated. Click  to submit the updates to the database. After that, a summary appears as shown in the figure below.



Import summary

9.4.3 E212/E164 reference book editor

This page enables the user to review, create and edit entries in the E212/E164 reference book. The page is divided into four panels. The left panels contain the  button at the bottom that serves to export the table to a MS Excel file.

The top left panel is a table of registered E212 codes.

ID	MCC MNC	Net	Country	Country code	Start date	End date	LOT
	Text mask	Text mask	Text mask	Text mask			Min. Max.
282...	202	Other Networks	Greece	30	2000.01.01 00:00:00	2100.01.01 00:00:00	10
328...	202	All networks	Greece		2000.01.01 00:00:00	2100.01.01 00:00:00	10
855	202	All networks	Greece		2000.01.01 00:00:00	2100.01.01 00:00:00	50
328...	202 000	undefined	Greece		2000.01.01 00:00:00	2100.01.01 00:00:00	10

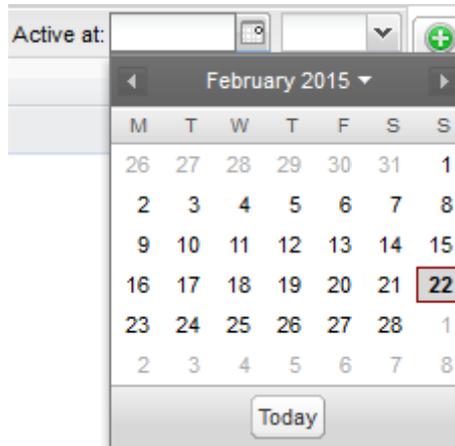
E212 codes

Use text masks under the column headers to filter the records in the table. Use the  button in the upper left corner to clear the filter.

- *ID*: internal identification number
- *MCC MNC*: Mobile Country Codes/Mobile Network Codes
- *Net*: name of the mobile network the E212 code belongs to
- *Country*: name of the country the E212 code belongs to
- *Country code*: code of the country in E164 format (optional)
- *Start date/End date*: period of the record validity (normally default values are used to set up an indefinite period)
- *LOT*: level of trust index (from 0 to 100). This parameter defines the level of trust in the source of information placed into the E212/E164 reference book. For example, Home Location Register always gives authentic information about E164/MCCMNC code matching, while some vendor's price list could be less reliable

NOTE: Several records for the same MCCMNC and differing LOT indices can exist in the table; only the record with the highest LOT will be used for billing and routing. However, it is recommended to timely verify the information and delete irrelevant records with the same MCCMNC to avoid confusion.

Displayed codes can also be filtered according to their validity by setting a date and time in the *Active at* tool bar:



The "Active at" tool bar

The *Add* and *Edit* tabs in the upper right corner of the page allow editing records and creating new ones. To activate the *Edit* tab, click on the record in the table. Enter the required parameters. Fields marked with an asterisk (*) are required.

NOTE: When a new country is added to the *Add code* tab, it automatically appears in the *Country region* tab of [Reference books\Regions](#)^[175]. See also the [Alaris YouTube video](#).

 Add
 Edit

MCC MNC*:

Net*:

Country*:

Country code:

Start date*:

End date*:

LOT*:

Add code tab

The bottom left panel shows a table of E164 codes matching the E212 codes. A single E164 code may match only one E212 code, while a single E212 code may match multiple E164 prefixes.

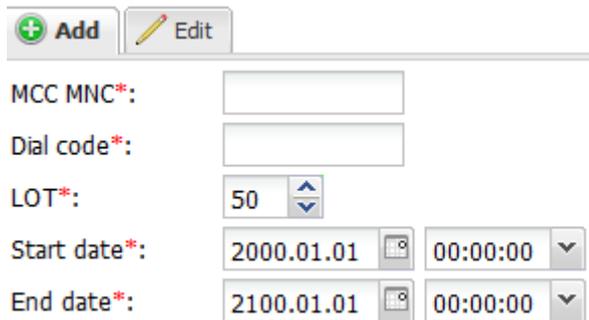
ID	MCC ...	Dial code	LOT		Start date	End date
	Text ma	Text mask	Min.	Max.		
57079	202	30	50		2000.01.01 00:00:00	2100.01.01 00:00:00
42680	202 001	30697	50		2000.01.01 00:00:00	2100.01.01 00:00:00
99913	202 001	30698	50		2000.01.01 00:00:00	2100.01.01 00:00:00
71491	202 001	3097	50		2000.01.01 00:00:00	2100.01.01 00:00:00
28392	202 001	30971	50		2000.01.01 00:00:00	2100.01.01 00:00:00
57089	202 002	306947615...	50		2000.01.01 00:00:00	2100.01.01 00:00:00

E164 codes

Click on the record in the top table of E212 codes. The matching E164 code will appear in the bottom table. The table contains the following information:

- *ID*: internal identification number
- *MCC MNC*: Mobile Country Codes/Mobile Network Codes
- *Dial code*: dial code in E164 format. NOTE: It is essential that all records contain a dial code. Records without a dial code will not be used for routing or billing
- *LOT*: level of trust index (from 0 to 100). This parameter defines the level of trust in the source of information placed into the E212/E164 reference book. For example, Home Location Register always gives authentic information about E164/MCCMNC code matching, while some vendor's price list could be less reliable
- *Start date/End date*: period of the record validity (normally default values are used to set up an indefinite period)

The *Add* and *Edit* tabs in the bottom right corner allow editing this code or adding a new one.



The screenshot shows a form with two tabs: 'Add' (with a green plus icon) and 'Edit' (with a pencil icon). Below the tabs are the following fields:

- MCC MNC***: A text input field.
- Dial code***: A text input field.
- LOT***: A spinner control with the value '50' and up/down arrows.
- Start date***: A date and time selector showing '2000.01.01' and '00:00:00'.
- End date***: A date and time selector showing '2100.01.01' and '00:00:00'.

Add E164 code tab

When through with defining the parameters, click  **Submit** to confirm or  **Reset** to discard the settings. Click  **Delete** to remove a record (available in the *Edit* tab).

NOTE: If a record in the top table (*E212 codes*) is closed (the *End date* field value is changed), the dependent records in the bottom table (*E164 codes*) are closed as well.

9.4.4 E212/E164 reference book import

The System supports import of the E212/E164 data from external sources as a CSV file. The file must contain the following columns:

- E212 (or MCC and MNC separately)
- E164
- Net

The *E212/E164 Reference Book Import* page consists of two panels. The left panel is a preview table of the CSV file; the right panel is the upload view.

File to import

Reference book codes.csv Browse

➔ Upload

e.212/e.164 reference book file import

Active sheet*: Sheet 1 ▼

Start row: 11 fix row

Import type*:
 Replace all matching entries in the database by the imported ones
 Close all existing entries in the database and make the imported ones effective as of the same time
 Complex reference book update

@ dry run

Close date*: 2016.09.17 📅

Effective date*: 2016.09.17 📅

Upload panel

Use the Browse button to select the file on the local PC and click ➔ Upload.

NOTE: If uploading the file takes longer than ten minutes, the System aborts the operation. It means that there may be a problem with the file.

Fill the appropriate parameters in the upload panel:

- *Active sheet:* select the spreadsheet of the uploaded file that will be imported
- *Start row:* define the first row of the reference book data, so that the System ignores everything that is above the rate table in the file. Check *fix row* to prevent the *Start row* value from changing when you navigate between rows in the preview
- *Import type:* contains the following options:
 - *Replace all matching entries in the database by the imported ones*

NOTE: If the imported file contains rows for code 999%, records existing in the reference book for the same code will be closed. If the imported file has no such rows, the existing records for codes 999% will remain unchanged. See also the [Alaris YouTube video](#).

- *Close all existing entries in the database and make the imported ones effective as of the same time.* The date for closing the entries is specified in the Close date parameter below.

NOTE: This task is normally performed by the Alaris support team.

- *Complex reference book update:* the parameter serves for updating the reference book as follows:
 - To close a dial code of a specific MCCMNC: upload a file containing the MCCMNC whose dial code(s) must be closed

Start page | e.212/e.164 reference book import

Sheet 1

	e.212	e.164	Column 3	Column 4	Column 5	Column 6
1	MCCMNC	Dial code				
[2]		7920				
3		11527				
4		52673				

This configuration will delete MCCMNCs associated with dial codes 7920, 11527 and 52673

Close a dial code of a specific MCCMNC

- To add a new dial code: upload a file containing the MCCMNC and the new dial code

Sheet 1

	e.212	e.164
1	MCCMNC	Dial code
[2]	201182	7546

This configuration will add dial code 7546 to MCCMNC 201182 (if the reference book did not contain dial code 7546 associated with MCCMNC 201182)

Add a new dial code

- To close the records for a specific MCCMNC: upload a file containing the e.212 column

Start page | e.212/e.164 reference book import

Sheet 1

	e.212
1	MCCMNC
[2]	204002
3	202009
4	202010

This configuration will close the records for MCCMNCs 204002, 202009 and 202010

Close records for a specific MCCMNC

- To close an existing MCCMNC record and open a new one: upload a file containing the MCCMNC, new country name (if needed) and new network name (if needed)

e.212	Country name	Net name
1 MCCMNC	Country	Network
[2] 204002	Netherlands	TELE2 Nederland B.V.

This configuration will close a record for MCCMNC 204002 and associate MCCMNC 204002 with the country Netherlands and network TELE2 Nederland B.V.

Close an existing MCCMNC record and open a new one

- To add a new dial code to the reference book: upload a file containing the MCCMNC, country name, network name and dial code

e.212	Country name	Net name	e.164
1 MCCMNC	Country	Network	Dial code
[2] 204002	Netherlands	TELE2 Nederla...	31017
3 204002	Netherlands	TELE2 Nederla...	316320

This configuration will add dial codes 31017 and 316320 to the reference book

Add a new dial code to the reference book

All these data can be imported as a single file or in separate files. The date the updates come into effect is specified in the *Effective date* parameter.

e.212	e.164	Net name	Country name	Column 5	Column 6
1 MCCMNC	Dial code	Network	Country		
2	7920				
3	11527				
4	52673				
5 201182	7546				
[6] 204002					
7 202009					
8 202010					
9 204002		TELE2 Nederla...	Netherlands		
10 204002	31017	TELE2 Nederla...	Netherlands		
11 204002	316320	TELE2 Nederla...	Netherlands		

This configuration combines all examples illustrated above

All updates combined in a single file

- *Dry run*: check the flag to view the updates without applying them to the database (they will not be submitted even after clicking the  button)

Very best short codes							
	Sender MCC	Destination nu...	Text pattern	Column 4	Column 5	Column 6	Column 7
1	Sender MCC	Dest. number	Text pattern	Vendor product	Client p		Note
[2]	333	123123123	.*	-	AM_SM		
3	250	1231231234	.*	-	AM_SM		
4	777	1231231235	.*	ID: 16961	AM_SM		
5	777	123123123	.*	-	AM_SM		
6	250	1234	.+++	-	1-To-All		
7	250	79584739221	.*	-	1-To-Allz		

CSV file preview

In the CSV file preview, set the appropriate column names by clicking on the headers.

NOTE: It is possible to set the *LOT (level of trust)* column when *Import type = Replace all matching entries in the database by the imported ones*. If the *LOT* column is not defined, the *LOT* value is set to 50 for all new entries. Find out more in the [Alaris YouTube video](#).

Click  to start import. To discard the settings, click . To cancel, click .

If any errors are found, they are displayed in the page that appears after clicking the  button.

Errors	
Row #	Information
5	Database record closed by row 5. Record details: MCC: 250, dial code: 1234, text pattern: .+++ , client product: 1-To-Allzz - ...
6	Database record closed by row 6. Record details: MCC: 250, dial code: 79584739221, text pattern: .*, client product: 1-To-...
7	Database record closed by row 7. Record details: MCC: 123, dial code: 333, text pattern: .*, client product: 1-To-Allzz - SM...
30	Potential ambiguity detected. Row 30 was skipped as a duplicate for row 3.

List of errors

The bottom section contains a preview of records to be updated. Click  to submit the updates to the Database. Click  to return to the previous page.

9.4.5 Billing status presets

The *SMS\Reference books\Billing status presets* page serves to create custom values for the *SMS billing option* parameter in [Carriers\Products](#)^[103]. The top of the page contains a table of billing option presets; the bottom of the page is a table of possible statuses for a preset selected in the top table. Both tables have the *Add* and *Edit* tabs.

ID	Preset name
	Text mask
0	Bill by submitted
1	Bill by delivered
2	Bill by attempt
3	Bill by reported
10000	Bill by any DLR received

Billing status presets

The table of billing option presets contains default records that cannot be edited. They are highlighted in red. These values are available for selection in the *SMS billing option* parameter in [Carriers\Products](#)^[103] even if no records were added to the table by the user.

Preset name*:

Add a new SMS billing option

To add a new SMS billing option, specify its name in the Preset name and click . The record will appear in the top table. Select it and configure the appropriate statuses in the bottom table using the *Add* tab.

ID	Status
	Text mask
10088	ACCEPTD
10089	ACCEPTED
10090	BUFFERD_CLB
10091	BUFFERED_SEGMENT

Table of statuses

Status*:

Add a new status

Click to save the changes. The *Edit* tab contains the button that allows creating a copy of an existing preset. See also the [Alaris YouTube video](#).

The newly created preset will be displayed in [Carriers\Products](#)^[103] in the *SMS billing option* parameter.

9.4.6 IM channels

The *SMS\Reference books\IM channels* page serves to add instant messaging (IM) channels for IM services utilized in the System. It allows viewing names reserved by the System, and adding your own names. The page consists of two panels - the *IM channels* table and the *Add/Edit* tabs.

ID	IM Code	IM channel name	IM TTL
9	bbm	BlackBerry Messenger	86400
3	facebook	Facebook Messenger	86400
11	hangouts	Hangouts Google	86400
8	line	Line	86400
4	qq	QQ mobile	86400
6	skype	Skype	86400
7	snapchat	Snapchat	86400
10	telegram	Telegram	86400
2	viber	Viber	86400
5	wechat	WeChat	86400
1	whatsapp	WhatsApp	86400
1001	sms	sms	

IM channels table

Names reserved by the System are in blue font; those created by users are in black font.

 Add
 Edit

IM Code*:

IM channel name*:

IM TTL*:

Add tab

The *Add* tab contains the following fields:

- *IM code*: the channel code name that can be used in the *im-channels* field (and is communicated to the client carrier when configuring a connection)
- *IM channel name*: the channel name that will be displayed in other System interfaces
- *IM TTL*: the time (in seconds) that can be spent on attempts to send the message through the instant messaging service

When through with defining the parameters, click  **Submit** to confirm or  **Reset** to discard the settings.

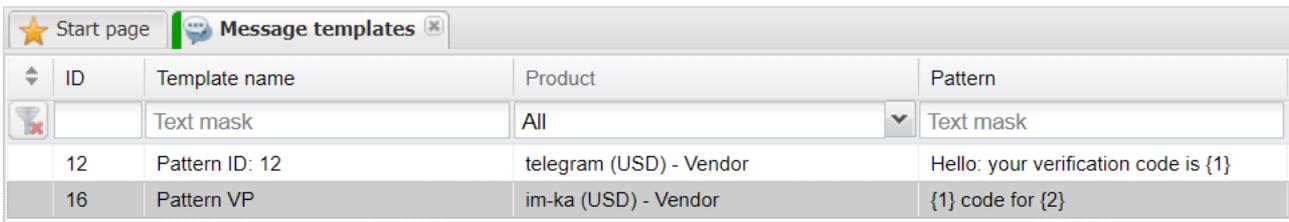
9.5 Routing

The SMS\Routing section allows managing the way messages are routed by the switch.

9.5.1 Message templates

The SMS\Routing\Message templates interface serves to register templates of pre-approved message texts. A template is a message text with placeholders that are replaced with parts of the message text received from the client and formatted specifically to be used when sending a message to the vendor.

Currently message templates are supported for WhatsApp only. This section is available to users that have the *Message templates* permission enabled in [Administration\Users](#) .



ID	Template name	Product	Pattern
	Text mask	All	Text mask
12	Pattern ID: 12	telegram (USD) - Vendor	Hello: your verification code is {1}
16	Pattern VP	im-ka (USD) - Vendor	{1} code for {2}

Message templates

The page is divided in two sections. The left section displays a table of message templates registered in the System.



Template name*: Yet another pattern

Product*: IM provider - IM provider (USD) - V

Pattern*: Hello: never provide the code {1} to strangers!

Add message template

The right panel contains the *Add* and *Edit* tabs that have the following fields:

- *Template name*
- *Product*: vendor product to which the message will be sent
- *Pattern*: the template pattern containing placeholders that will be replaced with values. The placeholders must have the following format: {1} (with a digit inside brackets).

When through with defining the parameters, click  to confirm or  to discard the settings.

9.5.2 Routing features

The *SMS/Routing/Routing features* page allows assigning preconfigured properties to routes. The assigned properties will be used as conditions in setting up routing rules.

The page consists of two panels. The left panel contains the *Classifier* and *Features* tab sheets; the right panel shows the *Add* and *Edit* tabs.

Classifier		Features			
ID	Product	MCCMNC	Feature code	Value	
	All	Text mask	All		
10000	PocoDinero Enterprises - Premium (USD) - Client	202000	FalseDLR (False Delivery; Mask: Yes|No)	Yes	
10001	PocoDinero Enterprises - Wholesale (EUR) - Ve...	202002	OrigNotKept (Originator Overwritten; Mask: Yes|No)	Yes	

Classifier tab sheet

The bottom of the table contains the *show inactive* checkbox that serves to show/hide outdated records.

The *Classifier* tab sheet is a table of products and features assigned to them. It contains the following columns:

- *ID*: the record ID number
- *Product*: select one or several products (learn more in the [Alaris YouTube video](#))
- *MCCMNC*

NOTE: A feature defined for an MCC will be applied to the MCCMNCs of the same product.

- *Feature code*: the feature name, description and possible values as configured in the *Features* tab sheet
- *Value*: the feature value
- *Start date, End date*: routing feature validity period (find out more in the [Alaris YouTube video](#))

Add
 Edit

Product*:

MCCMNC*:

Feature code*:

Value*:

Add tab

The *Add* and *Edit* tabs in the upper right corner of the page allow editing table records and creating new ones. To activate the *Edit* tab, click on the record in the table. Enter the required parameters in the corresponding fields. Fields marked with an asterisk (*) are required. When through with defining the parameters, click **Submit** to save the entry or **Reset** to discard the settings.

Classifier		Features		
ID	Feature code	Description	Value pattern	
	Text mask	Text mask		
1	MNP	Mobile Number Portability Support	Yes|No	
2	LongMSG	Long Message Support	Yes|No	
3	LocalTime	Local Timestamp	Yes|No	
4	OrigNotKept	Originator Overwritten	Yes|No	
10	FalseDLR	False Delivery	Yes|No	
6	DLVNotif	Delivery Notifications To Handset Support	Yes|No	
7	Bin	Binary	Yes|No	
8	MSGLength	Length Support	ld+	
9	AvailNet	Available Network	Yes|No	
5	PreRegOrig	Pre-Registration Originator	Yes|No	

Features tab sheet

The *Features* tab sheet contains a list of available features and the *Add* and *Edit* tabs for creating new entries or editing existing ones.

The following default features exist in the System:

- *MNP* (Mobile number portability support): the route supports mobile number portability. This feature allows configuring routing rules so as to save money on HLR requests
- *Long MSG* (Long Message Support): the route supports messages exceeding standard length. The feature can be used to configure routing to partners that process long messages correctly
- *LocalTime* (Local Timestamp)
- *OrigNotKept* (Originator Overwritten): describes routes where the A-number may be changed during message transfer
- *FalseDLR* (False Delivery): describes routes where messages may be terminated with fake delivery reports
- *DLVNotif* (Delivery Notifications To Handset Support)
- *Bin* (Binary): the route supports binary (rich-content) SMS
- *MSGLength* (Length Support)
- *AvailNet* (Available Network)
- *PreRegOrig* (Pre-Registration Originator)

 Add
 Edit

Feature code*:

Description:

Value pattern:

Add tab

The *Add* tab contains the following parameters:

- *Feature code*: name of the feature
- *Description*: description that explains the feature
- *Value pattern*: possible values (|-separated)

To edit a record, select it in the table.

NOTE: Default features cannot be edited. Click  **Submit** to save the entry or  **Reset** to discard the settings.

9.5.2.1 How to use routing features in routing

Suppose vendor X sends false DLR reports to MCCMNC 250001 and must therefore be excluded from routing. Proceed as follows:

1. In the *SMS/Routing/Routing features* page open the *Classifier* tab sheet of and create a new record with the the following parameters:
 - *Product*: select the appropriate product of vendor X
 - *MCCMNC*: specify 250001
 - *Feature code*: select *FalseDLR*
 - *Value*: specify *Yes*
2. Open the [SMS\Routing\Routing rules\Rules page](#)^[293] and create a new rule. In the *Rule type* field of the *Add* tab select *Block*. In the *Condition* field specify *VNDFakeDLR == Yes*. The System will therefore reject all vendors that have the *VNDFakeDLR* value equal to *Yes*.

9.5.3 Routing rules

Routing rules define all the routing logic. Each rule is an instruction from a user to the System - which vendors and networks/E212 codes to use for terminating traffic from a specific set of client products and going to a list of destinations or E164 dial codes. By default, each rule affects all client products and all destinations/E164 codes, unless specified otherwise. Vendor selection is done by setting choices: choice #1 will be the first route for the switch to try, choice #2 will be the second option (in case the first route fails) etc.

9.5.3.1 Routing procedure description

For every message that hits the switch, it immediately sends a request to the routing module over a proprietary protocol. The most important information in the request is the internal ID of the client channel on the switch and the addressed B-number. The System performs client authentication based on the client channel GUID provided by the switch and (optionally) the “service type” parameter specified in the SMS, identifies the net name for the E164 B-number, and collects the E212 code associated with that net name in the [SMS\Reference books](#)^[275] or in an external HLR service.

As soon as E212 code matching the destination network is obtained, the System tries to find the respective rate(s) in the client product. Then it makes up a list of vendor rates available for the given MCCMNC (or MCC) code.

As soon as the list of vendor rates in the format “one rate per vendor product” is created, the System checks for any restrictions related to any of the respective vendor accounts and filters the vendor rate list accordingly. Possible restrictions are: no SMS POIs created for the vendor product, or the outgoing credit for the vendor is exceeded, therefore the vendor cannot be used for routing.

On the final stage of routing the System goes through the list of routing rules that can be applied to the given customer and MCCMNC. If such rules are found, it picks the vendor routes from the list (for more details on vendor selection please refer to [SMS\Routing\Routing rules\Routing types](#)^[293] and [SMS\Routing\Routing rules\Rules page](#)^[293]). Then the System returns the ordered sequence of the selected routes as vendor channel GUIDs back to the switch. Maximum number of routes per SMS is set by the Vendors to send parameter in [Administration\System settings\SMS](#)^[56]. The switch checks if it has active binds of correct types for the provided GUIDs. If yes, message termination attempts are performed to the vendors in the order they were returned by the System. Rerouting to the next vendor is made after the expiration of timeout for the previous route (default timeout value is 30 seconds) or (for SMPP) upon receipt of submit_sm_resp message with any value in the cause field except 0x00 (for SMPP). For HTTP, rerouting is made upon the receipt of a valid response with the status other than 200 OK or no response.

9.5.3.2 Routing types

In terms of vendor list creation in a rule, the following routing types exist in the System (they are just for explanation purposes and are not directly reflected in any System parameters):

- *Static routing*: the routing choice contains one or several manually selected vendor products (if more than one vendor product is present in one choice, percent-based load sharing must be set), so that the routing is only possible between these vendor products
- *Dynamic routing*: instead of a static product list, a formula is provided in the routing choice. The formula is resolved as a numeric value. When the routing rule is triggered, the System forms a list of available vendors and uses the formula to calculate the routing weight for each of them. The bigger the resulting weight value is, the higher the vendor position in the resulting route list – so the vendor with the biggest weight will be used as route #1. All vendors with negative or zero weights are disregarded. In case the weight is equal for two or more vendors, the System introduces a small random value to arbitrarily distribute the traffic between them. If necessary, the initial list of vendors can be trimmed by applying a condition – a logical expression that is resolved as *True* or *False*. If it is *False* for a vendor product, that product is disregarded. Conditions can contain the same System parameters and operators as formulas. The key difference is that the result of the formula must be a number, while the result of the condition is a Boolean (*True/False*) value.

NOTE: If the *Condition* field is empty, the System applies the condition $MRG \geq 0$

- *Combined routing*: it is possible to set a formula in the routing choice, but at the same time to make a list of manually selected vendor products to apply this formula. In this case, the routing is *dynamic* (as it is based on a formula, the final sequence of vendors for each SMS may be different if the formula parameters change), and at the same time *static* (as the routing is done only within the manually defined list of vendor products).

It is also possible to use a more complex type of combined routing: the user can set a static product and a formula within the same routing choice (optionally – with a limited set of vendor products). Then configure load sharing between two options – so that a certain part of the affected traffic will be statically routed to the selected vendor product, while the other part of the traffic will be dynamically distributed according to the formula.

9.5.3.3 Rules page

The *SMS\Routing\Routing rules* page serves to review, create and edit routing rules displayed in the *Routing rules* table.

Routing rules define all the routing logic. Each rule is an instruction from a user to the System - which vendors and networks/E212 codes to use for terminating traffic from a specific set of client products and going to a list of destinations or E164 dial codes. By default, each rule affects all client products and all destinations/E164 codes, unless specified otherwise. Vendor selection is done by setting choices: choice

#1 will be the first route for the switch to try, choice #2 will be the second option (in case the first route fails) etc.

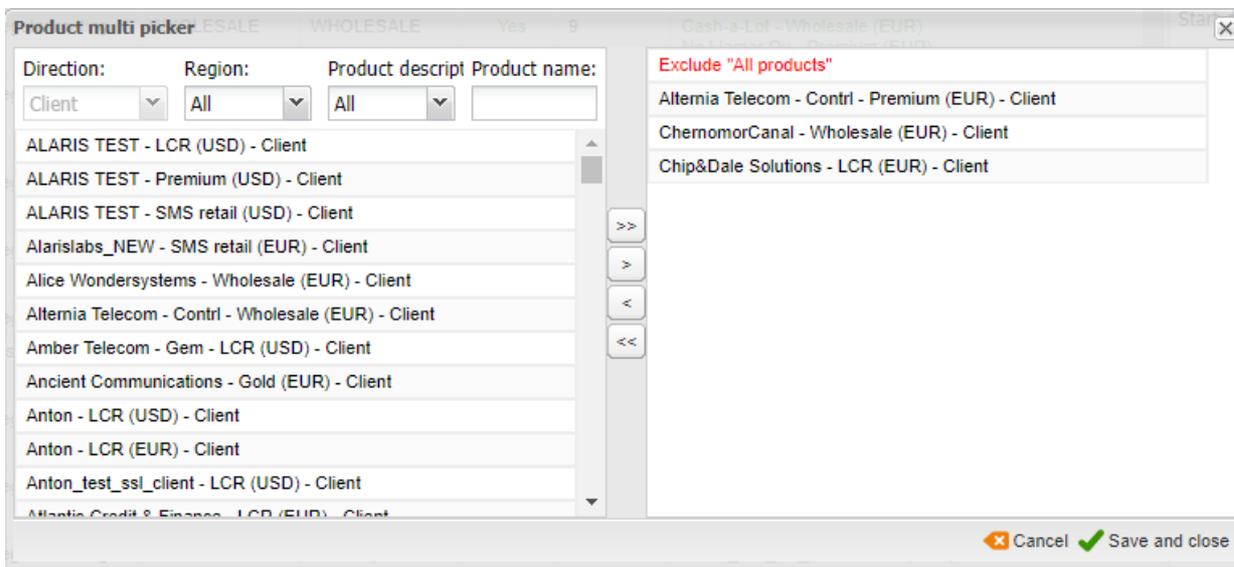
Caller ID tags: All							
ID	Description	Rule type	Context	Next	Is active	Priority	
	Text mask	All	All		All	Min. Max.	
10000	Test	Regular routing	WHOLESALE	WHOLESALE	No	99	
10001	Switch to WHOLES...	Regular routing	DEFAULT	WHOLESALE	Yes	95	
10002	Fixed - 1 Vendor	Regular routing	WHOLESALE	WHOLESALE	Yes	10	

Routing rules table

Use text masks or drop-down lists under the column headers to filter the records in the table. Use the button in the upper left corner to clear the configured filter.

The upper toolbar contains the following controls:

- *Vendor products*: filter that allows specifying one or more vendor products used in the choices of the routing rules or excluded from the choices (for rules that have the *Rule type = Block*). Click to open the multipicker. The vendor products can be filtered by *Direction*, *Region*, *Product description* (LCR, Premium etc.) and *Product name*



Product multipicker

- *Source tags, Destination tags*: filter by A- and B-number tags included in the routing rule
- *Active at*: filter by the activity period

The *Add* and *Edit* tabs in the top right corner of the page serve to create new rules and edit existing ones.

Add
 Edit

Description*:

Rule type*: ▼

Context: ▼

Start date*: ▼

End date*: ▼

Is active

Priority*: ▲▼

Client product names: ▼

Edit list

wholesale	✘
SuperHero	✘
Large	✘

Client products: ▼

Edit list

1-To-Allzz - SMS retail (EUR)	✘
ACQ_Client_1 - IM - SMS (USD)	✘

Vendor product names: ▼

Edit list

WholeSale	✘
PREMIUM	✘

Add tab

The following parameters are available for configuration in the *Add* tab:

- *Description*: arbitrary text description of the rule. It is recommended to use easy-to-understand descriptions that give an immediate idea about the rule (e.g. *Russia mobile for Client X*)
- *Rule type*: type of the rule according to expected effect:
 - *Regular routing*: standard rules providing vendors for routing

- *Block*: route-blocking rules
- *Test*: rules aimed at distributing a predefined a small predefined portion of traffic going through the System among many or all active vendors in the System, in order to keep their stats up-to-date. The statistics is calculated based on ASR, DLR(s) and delivery delay. The stats calculation period is configured by the parameters EMA frame, EMA stats delay and EMA valid period in [Administration\System settings\SMS](#)^[56]
- *Context*: user-defined group, to which the given rule is assigned (see [SMS\Routing\Routing rules\Use of contexts](#)^[302])
- *Start date / End date*: date and time when the rule becomes effective / goes out of effect. Rules whose *End date* is in the past become inactive and are greyed out in the table
- *Is active*: select this checkbox to enable the configured rule, otherwise the routing module will disregard it
- *Priority*: numeric value defining the rule priority in the range from one to 100. Bigger values mean higher priority. Two or more rules may have the same priority. In this case the rule with bigger ID is prioritized. By default the final route list will be created after sorting the vendors from all applicable rules by their weight. The weight can be viewed in the [SMS\Routing\Simulation](#)^[314] page

NOTE: If several rules have the same priority, static choices will always be on top of the resulting route list (even if some/all of them are not choices #1 in their rules. This is done because the System is unable to decide how to otherwise combine static and dynamic vendors from several rules (static vendors cannot be sorted by weight, as they have no weight assigned). To avoid ambiguity, it is not recommended to create two rules with the same priority.

- *Client product names*: types of client products whose traffic the rule will route. Can be inclusive or exclusive. Limiting the list of affected client products by type instead of the exact product list is more convenient when separating the routing for large customer groups – for more detail refer to [SMS\Routing\Routing rules\Use of contexts](#)^[302]
- *Client products*: list of client products the rule will affect. Can be inclusive or exclusive. Can be used for a rule specific for one client or a small group of clients (i.e. where using the *Client product names* parameter does not help)

NOTE: The field displays only products that have POIs associated with them, as products with no associated POIs cannot be used for routing.

- *Vendor product names*: types of the vendor products that will be allowed to take part in route selection. Can be handy when the user, for example, wants to limit the possible routing options to vendors whose products are called *Premium* and *Platinum* without enumerating all such vendors one by one

MCCMNC*: Selected: 8

Source tags:

Edit list

RUSSIA ✖

Destination tags:

Inclusive content pattern:

Exclusive content pattern:

Sender ID pattern:

Dest. number pattern:

Condition:

Add tab, continued

- *MCC MNC*: E212 codes the rule will be effective for (can be inclusive or exclusive). The MCCMNCs are checked for compliance with the codes received from the HLR (if any) or the reference book. Click to open the multipicker. The bottom area of the picker contains the edit box that allows pasting a list of e.212 codes with an arbitrary separator (comma, space, etc.). Click **Paste to list** to have the values parsed and added to the filter
- *Source/Destination tags*: tags used for routing by A-number and B-number respectively. Tags are configured in [Reference books\Tags](#)¹⁶⁰. Can be inclusive or exclusive

NOTE: Source number tags serve to configure routing by A-number; destination number tags can be used in creating routing rules and black lists. Using both numbers in routing rules, it is possible to filter traffic by a specific source and destination number combination.

- *Inclusive content pattern*: keywords and keyword patterns, for example `*discount.*`. Messages with this keyword or pattern will be selected by the routing rule. The field comes handy in creating blocking rules that will filter messages that can be considered as spam. The maximum field length is 4,000 symbols (or around 2,000 for Unicode symbols). Regular expressions are allowed

NOTE: The System translates the text of SMS messages to UTF-8, therefore it is recommended to use only symbols compatible with the UTF-8 encoding

- *Exclusive content pattern*: serves to process traffic within a specific rule except for the specified pattern. The maximum field length is 4,000 symbols (or around 2,000 for Unicode symbols). Regular expressions are allowed
- *Sender ID pattern*: regular expression that configures a group of A-numbers. For example, for all short codes following the pattern 205XXX and 215XXX use the regular expression `(205|215)[0-9]{3}`
- *Dest. number pattern*: regular expression that configures a group of B-numbers. For example, for 10-digit B-numbers use the regular expression `[0-9]{10}`

NOTE: The use of double pipe symbols (||) is not allowed in regular expressions in the fields *Content pattern*, *Sender ID pattern* and *Dest. number pattern*. If double pipes are used the following message will be displayed: "Sorry, not allowed to use double pipe in this regular expression". See also the [Alaris YouTube](#) video.

- *Condition:* allows configuring complex conditions for selection of the rule. Only client metrics can be used, as the field is checked before the rule is applied. If the condition in the field is resolved as false, the System proceeds to the next rule. Find out more in the [Alaris YouTube video](#)

Choice list:

Choice1 ▲ X

Condition:

Vendor products:

Formula:

Templates:

Test share, %: Formula values Check syntax

Share, %:

Max routes:

Add tab, Choice list

- *Choice list:* list of vendor selection options. One or several choices per rule can be created; each can contain one or several routing options. Click the [Add new choice](#) button to open the *Add new choice* form. Each choice form contains the following controls at the top right corner: ▲ - toggle choice; ▼ - clone choice; X - delete choice. The following choice parameters are available:
 - *Condition:* logical expression based on system metrics that resolves as *True* or *False* for every involved vendor product, so that the product is or is not considered during the route selection in the current rule

NOTE: This field helps reject vendors that are not suitable for traffic termination based on the predefined condition. If the field is empty, the System checks for negative margin and rejects vendors that offer rates higher than client rates.

Click the button to open the drop-down list of conditions. The system metrics available as condition parameters are listed in the [SMS\Routing\Routing rules\Statistical parameters in routing](#)³⁰⁵⁾ section below. The use of standard mathematical and logical operations (*and/or, if/then/else* etc.) is allowed. Additionally, routing features can be used as conditions. Routing features and the examples of

their use are detailed in [SMS\Routing\Routing features](#) ²⁹⁰. Click the  button to verify the syntax of the conditional expression.

NOTE: If a formula or condition (in the fields *Condition*, *Formula* and *Vendor condition*) is verified as incorrect, the routing rule cannot be saved.

Condition:	<input type="text"/>		
Vendor condition:	<input type="text" value="VPoiDLR == 0"/>		
Rule comments:	<input type="text"/>		

Vendor condition field

- *Vendor condition* (available when the *Rule type = block*): allows selection of vendor metrics and features. If a vendor route complies with the condition specified in the parameter, the route will be excluded from routing. For example, if the parameter value is `VPoiDLR == 0`, all vendors that have `DLR = 0` for a specific MCCMNC will be excluded from routing. Find out more about the feature in the [Alaris YouTube video](#)

Choice 1 ▲ ✕

Condition:  

Carrier*: ▼

Product*: ▼

Share, %: ▲▼

Carrier*: ▼

Product*: ▼

Share, %: ▲▼

Add product (static options)

Static options (available for each vendor product added by the  button):

- *Condition* (see above)
- *Carrier*: vendor name
- *Product*: vendor product name

NOTE: The field displays only products that have POIs associated with them, as products with no associated POIs cannot be used for routing. See also the [Alaris YouTube video](#).

- *Share*: share of traffic to go to the given vendor product out of the total scope of traffic affected by the rule (needs to be used in case there are two or more products – or products and formulas – within one choice). Makes it possible to balance the load between several vendors

Click the  button to exclude the added product from the vendor selection.

Choice 1 ▲ □

Add product Add formula

Condition: fx fx

Vendor products: ✎ Edit list

Formula:

Templates: ▼ Save Delete

Test share, %: ▲ ▼ fx Formula values fx Check syntax

Share, %: ▲ ▼

Max routes: ▲ ▼ Remove this formula

Add new choice (dynamic)

Dynamic options (available for each formula added by means of the *Add formula* button):

- *Condition*
- *Vendor products*: optional list of vendor products to apply the routing formula to (no other vendor products will be considered in this case). The default value is empty, which means that all vendors with valid rates for the E212 is going to take part in the routing process. Click the ✎ Edit list button to open the window that allows adding/excluding vendor products.

Edit incl/excl list □

Carrier:	Product:	
<input type="text"/>	<input type="text"/>	Amber Telecom - Premium ⊖
		Alopex Lagopus VSEMU - WholeSale ⊖
		Alice Wondersystems - WholeSale ⊖
Alcazar Networks - Premium		
Alcazar Networks - WholeSale		
Alice Wondersystems - Premium		
Alice Wondersystems - WholeSale		
Alopex Lagopus VSEMU - WholeSale		
Amber Telecom - Premium		
Amber Telecom - WholeSale		
Ancient Communications - WholeSale		
Asgard Telecom - WholeSale		
Astrobleme Limited - WholeSale		

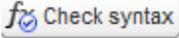
Page 1 of 33

✖ Cancel ➡ Save and close

Edit incl/excl list

Vendor products can be filtered by carrier or product name in the left part of the window. Double-click on the product to add it to the list. Click the  button to remove the product from the list. When through with creating the list, click  **Save and close** to confirm the settings. The list of selected products will appear in the *Vendor products* field.

NOTE: The field displays only products that have POIs associated with them, as products with no associated POIs cannot be used for routing.

- Formula:** routing formula - a Python expression that may contain any of the supported System parameters (e.g. margin, ASR etc.), arbitrary numeric factors and mathematical, logical or conditional operators. Click the  button to open the drop-down list of parameters supported in Python. For every vendor product involved in routing, the formula resolves as a number used as the weight of the respective vendor product. The weight serves to set the order of routing - vendors with a higher weight are considered first. The metrics available as formula parameters are the same as those in the *Condition* control – refer to the [SMS\Routing\Routing rules\Statistical parameters in routing](#)^[303] section below. Click the  button to verify correctness of the formula. Click the  button if you wish to exclude the added formula from the routing rule.
- Templates:** drop-down list of preset formula templates allowing difficult-to-type formulas to be reused in new rules. Use  and  buttons to manage the templates.
- Test share, %:** share of traffic passing through the rule that needs to be divided between all vendors present in the Vendor products list (if any) in order to keep their stats up-to-date
- Share, %:** share of traffic to be routed by the formula out of the total scope of traffic affected by the rule
- Max routes:** the maximum number of routes to be returned by the routing choice with the formula. The parameter limits the number of vendor POIs

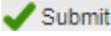
Next*:

Rule comments:

Next and Rule comments

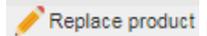
- Next:** this parameter defines whether the routing must:
 - stop after the current rule (*Huntstop*)
 - continue in the current context (*Continue search within same context*) or
 - switch over to another context (*Switch to context*). See [SMS\Routing\Routing rules\Use of contexts](#)^[302] for more detail.
- Rule comments:** arbitrary comments on the configured routing rule
- Probability, %:** the share of traffic processed by the test rule (applicable only for rules with the value *Test* in the *Rule type* parameter)

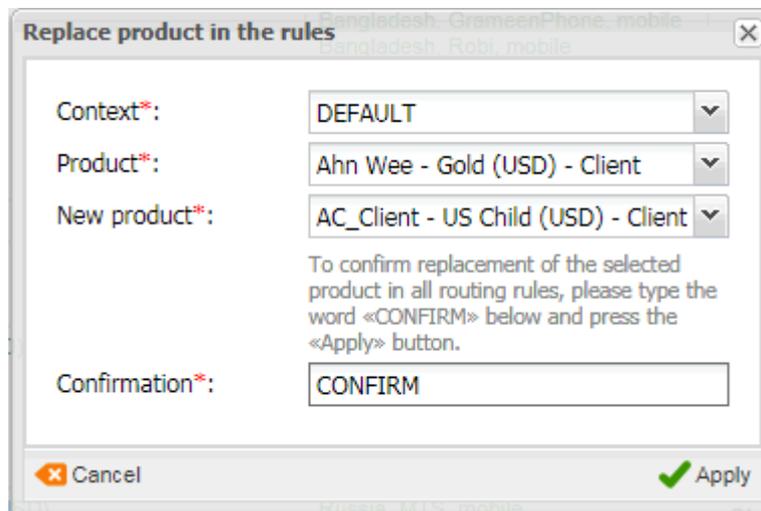
NOTE: If a rule contains both static and dynamic options, static choices will be checked earlier than dynamic ones, even if dynamic choices are placed earlier in the list.

When through with defining the parameters, click  to confirm or  to discard the settings.

The  button creates a duplicate of the configured rule. This is helpful when you wish to configure another rule with similar parameters.

Use the  button to delete the selected rule.

The  button at the bottom of the rules table serves to replace one product with another in all available routing rules. The control opens a dialog box that prompts the user to select the context, the product to be replaced, and the new product as shown in the figure below. As this action changes routing rules significantly, the user is requested to confirm the operation. For this, type CONFIRM in the *Confirmation* field. See also the [Alaris YouTube](#) video.



Replace product in the rules

The *Choice* sections of *Edit* tab additionally contain the *Vendor rate* field. It is displayed in the list of static choices if the *MCCMNC list* value is *Inclusive*. When the field is not empty it indicates that the vendor product contains a rate. If it contains several rates, the field will show the highest one. Find out more in the [Alaris YouTube video](#).

NOTE: It is possible to disable the checkup of vendor products belonging to the same client. By default the checkup is enabled, meaning that if the vendor product belongs to the client's carrier, it will be excluded from routing. When disabled, it is possible to route traffic from a client to a vendor belonging to the same carrier. To disable the checkup, contact the Alaris technical support team and communicate the code BZ27200. Find out more in the [Alaris YouTube video](#).

9.5.3.4 Use of contexts

A context is a user-defined group of routing rules. Each rule is assigned to a context. There may be as many contexts in the System as the user needs. The only context that must be there at all times is DEFAULT – that is where routing of every SMS always starts.

Switching the route search to another context is possible by setting the *Next* parameter in one of the rules in the current context to the *Switch to context* value supplemented with the name of the target context (it is not necessary to set any routing choices in such rules). If that routing rule is triggered, the System switches to the selected context for further routing. There are no other ways to make the System

change the current context – if it has checked all rules in the current context and has not come across any context-switching rules, the routing procedure will end.

There are two typical ways to use contexts in routing:

- Contexts are created for different types of clients, based on client product names (e.g. *Premium* or *Wholesale*). To switch the routing to the right context for all clients with a particular product type(s) respective context-switching rules must be created in the *DEFAULT* context
- Contexts are created for individual clients when it is necessary to stipulate one or several per-customer exceptions in the routing setup. In this setup each individual context needs to contain a context-changing rule with the lowest priority, so that this rule will be the last considered. The System will be switching the routing to a context that will be common for all customers – therefore that new context must contain routing rules effective for all clients

To create a context, open the *Add* tab of the *Routing rules* page. Unfold the *Context* drop-down list. In the edit field at the bottom of the list type the context name and click . Fill other parameters of the rule as appropriate and click  to save the changes.

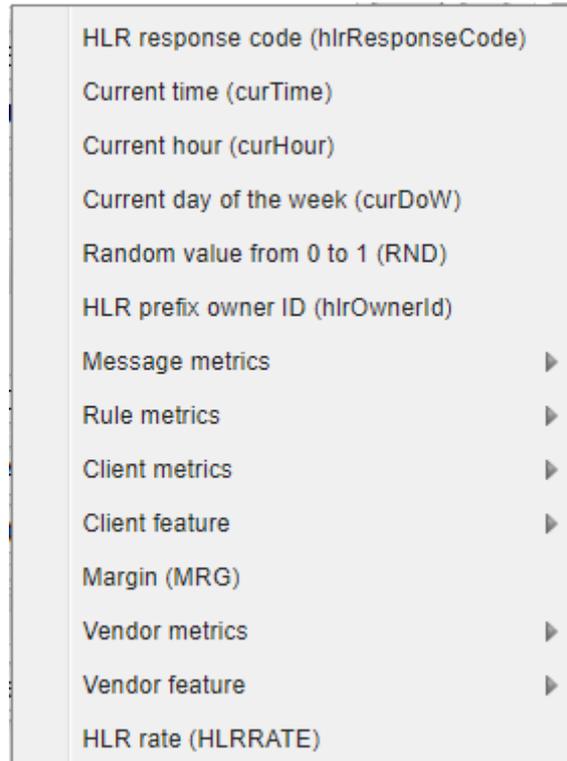
Context:	DEFAULT
Start date*:	DEFAULT
End date*:	NADYA PREMIUM
Priority*:	WHOLESALE
Client product	SUPERcontext 

Adding a new context

To remove a context, delete all rules in this context.

9.5.3.5 Statistical parameters in routing

The following metrics can be used as parameters in the *Condition* or *Formula* expressions in [SMS\Routing\Routing rules](#) ^[293]:



Condition parameters

The following System metrics are available as condition parameters (can be selected from the list or typed in manually):

- *curTime*: current time in seconds starting from 01.01.1970 (UNIX time)
- *curHour*: current hour
- *curDow*: current day of the week
- *RND*: random value from 0 and 1
- *hlrResponseCode*: HLR response code. Its value is taken from the providerResponseCode field that is returned by the HLR proxy module. Additionally, the field value is saved to the EDR
- *Client metrics*:
 - CLAccBal: client account balance in the System currency
 - CLRate: client rate value in the System currency
 - CLPoiASR: client POI ASR
 - CLPoiDLR: client POI DLR
 - CLPoiADD: client POI average delivery delay in minutes
 - CER: client effective rate
- *Client features*:
 - *CLTextIntegrity*: verified text integrity
 - *CLMNP*: mobile number portability support

- *CLLongMSG*: long message support
- *CLLocalTime*: local timestamp
- *CLOrigNotKept*: originator overwritten
- *///(CLFeatures)*
- *CLDLVNotif*: delivery notifications to handset support
- *CLBin*: binary
- *CLMSGLength*: length support
- *CLAvailNet*: available network
- *CLFalseDLR*: false delivery
- *CLPreRegOrig*: pre-registration originator
- *MRG*: margin in the System currency
- *Vendor metrics*:
 - *VAccBal*: vendor account balance
 - *VRate*: vendor rate value in System currency
 - *VPoiASR*: vendor POI ASR
 - *VPoiDLR*: vendor POI DLR
 - *VPoiADD*: vendor POI average delivery delay in minutes
 - *VER*: vendor effective rate
- Vendor features: similar to client features (for example, *VTextIntegrity*: verified text integrity etc.)
- *Message metrics*:
 - *aniTon*: ANI type of number
 - *aniNpi*: ANI numbering plan indicator
 - *dnisTon*: DNIS type of number
 - *dnisNpi*: DNIS numbering plan indicator
 - *DNISScore*: DNIS score
 - *DNISRisk*: DNIS risk level
 - *RuleAttCNT*: rule total attempt count
 - *RuleSucCNT*: rule successful attempt count
 - *RuleDLVCnt*: rule delivered attempt count

NOTE: The routing metrics *RuleDivCNT*, *RuleSucCNT* and *RuleAttCNT* can be calculated directly by the SMS switch. This will enable routing modules to receive current values in near real time. For configuration contact the Alaris technical support team and communicate the code BZ12760 and a list of

rule IDs for which the optimized calculation must be enabled. On request the feature can be applied to all rules.

- *REFMCCMNC*: MCCMNC from the System's reference book
- *HLRMCCMNC*: MCCMNC received from the HLR
- *PORTED*: the metric indicates that the number is ported

NOTE: The *REFMCCMNC*, *HLRMCCMNC* and *PORTED* metrics serve to create conditions to route traffic ported from one network to another through a specific partner. For example, the formula *PORTED* and (*REFMCCMNC* == "250001") means that the number is ported from the network with the MCCMNC 250001, and the formula *PORTED* and (*REFMCCMNC* == 250099) and (*HLRMCCMNC* == "250001") means that the number is ported from the network with the MCCMNC 250099 to MCCMNC 250001.

- *MRGH*: average rule margin (hourly)
- *MRGD*: average rule margin (daily)
- *messageLen*: message length. Use this parameter together with the appropriate message length in bytes (for example, *messageLen* >= 70).

NOTE: For data codings 0 to 7 every character corresponds to 1 byte, for coding 8 - to 2 bytes.

- *concatMessage*: concatenated message. If the message is a part of a long message (specific ESM Class is set and UDH is present in the text), the metric is set to 1.
- *Rule metrics*:
 - *RuleAttCNT*: rule total attempt count
 - *RuleSucCNT*: rule successful attempt count
 - *RuleDivCNT*: rule delivered attempt count
 - *MRGH*: average rule margin (hourly)
 - *MRGD*: average rule margin (daily)
- *HLRRATE*: HLR rate. The metric serves to create formulas and conditions based on the cost of HLR dipping. Find out more about the feature in the [Alaris YouTube video](#)

For more detail about rule metrics, refer to [Appendix 4. Formulas and conditions in routing](#)^[435]

9.5.3.6 Routing configuration algorithm

Suppose you need to configure routing for two types of SLAs – wholesale and premium. Create client products of two types: *Premium* and *Wholesale*. Products are created in the [Carriers\Products](#)^[103] page.

Two routing setup procedures are possible:

Procedure 1 (recommended).

1. Create two contexts: *wholesale* and *premium* (refer to [SMS\Routing\Routing rules\Use of contexts](#)^[302] for instructions)
2. Create rules for wholesale clients, with the value *wholesale* in the *Context* field. Create rules for premium clients, with the value *premium* in the *Context* field.

NOTE: Leave the *Client product names* field blank as the product types are already defined by the context.

3. Create two “context-switching rules” so that the System can switch to the *premium* context for premium routes and *wholesale* context for wholesale routes. For these “context-switching rules” configure the following parameters:
- in the *Context* field select *DEFAULT*
 - in the *Priority* field enter a high value, for example, 95
 - in the *Client product names* field select appropriate values (for example, those relating to retail/Gold etc. SLA for the premium routes and relating to LCR, standard etc. SLA for wholesale routes)
 - in the *Vendor product names* field select appropriate values
 - in the *Client product names* and *MCC MNC* fields select *All*
 - leave the *Choice* list must be left blank
 - in the *Next* field select *Switch to context*
 - in the *Next context* field select *wholesale* for wholesale routes and *premium* for premium routes.

An example of a context-switching rule is illustrated in the figure below.

Add
 Edit

Description*:

Rule type*:

Context:

Start date*:

End date*:

Is active

Priority*:

Client product names:

Edit list

Premium	✖
---------	---

Client products:

Vendor product names:

Edit list

Premium	✖
Special	✖
Premium SMS	✖
Retail	✖

MCCMNC*:

Source tags:

Destination tags:

Content pattern:

Sender ID pattern:

Dest. number pattern:

Condition:

Choice list:

Next*:

Next context:

Rule comments:

“Context-switching rule” settings

Procedure 2.

1. Create the routing rules as necessary. In the *Context* field of all the rules select *DEFAULT*.
2. In the *Client product names* list select *Premium* for premium clients and *Wholesale* for wholesale clients.

NOTE: In this case the System will have to process all rules of the *DEFAULT* context which adds extra load on the System. Besides, administration of the numerous rules may be difficult. It is therefore recommended to use Procedure 1 in routing rule creation.

9.5.3.7 Routing setup example

Suppose Client A has 3 products: CLI, Non-CLI, Premium. The following routing setup is required:

- Premium traffic to Spain from Client A needs to be routed to special vendors (not like all other Premium clients), as well as its CLI traffic to TIM Brazil.
- No traffic to MTS Russia for client A is allowed.
- No traffic to O2 UK is allowed from Client A - Premium.
- For other countries general routing for all clients of the same type (Premium, CLI, Non-CLI) needs to work for that client.

Context DEFAULT

Rule 1

Name = Switch to CLI

Rule type = Regular routing

Priority = 90

Client product names = CLI (the rule will only work for clients with products named CLI, irrespective of the client name)

Client products = All

MCCMNCs = All

Choices = No

Next = Switch to context, Next context = CLI (switching the route search to the context CLI)

Rule 2

Name = Switch to Non-CLI

Rule type = Regular routing

Priority = 90

Client product names = Non-CLI

SMS

Client products = All

MCCMNCs = All

Choices = No

Next = Switch to context, Next context = Non-CLI

Rule 3

Name = Switch to Premium

Rule type = Regular routing

Priority = 90

Client product names = Premium

Client products = All

MCCMNCs = All

Choices = No

Next = Switch to context, Next context = Premium

Rule 4

Name = Block MTS Russia - Client A

Rule type = Block

Priority = 20 (basic priority of Block rules is always higher than that of Regular routing rules, so the Priority field doesn't have any real impact in this case)

Client product names = All

Client products = Client A Premium, Client A CLI, Client A Non-CLI

MCCMNCs = 250001

Vendor products = All

Context PREMIUM

Rule 4

Name = Spain - Client A

Rule type = Regular routing

Priority = 90

Client product names = All (you don't need to set Premium here, as this has already been checked in the DEFAULT context and no other client products except Premium are allowed in this context anyway)

Client products = Client A Premium

MCCMNCs = 214% (please note the '%' sign after the MCCMNC - it makes the rule valid for any network within the given MCC)

Choices = Vendor 1, Vendor 2, Vendor 3

Next = Huntstop (this is to stop routing for Client A on this rule, so that vendors for Spain from Rule 5 won't be added to the routing results - it is up to you whether or not this needs to be done in each particular case)

Rule 5

Name = Spain - General

Rule type = Regular routing

Priority = 80 (this rule has a lower priority than Rule 4, therefore for Client A Rule 4 will be triggered first)

Client product names = All

Client products = All

MCCMNCs = 214%

Choices = Vendor 4, Vendor 5, Vendor 6

Rule 6

Name = Other countries - General

Rule type = Regular routing

Priority = 80

Client product names = All

Client products = All

MCCMNCs = All

Choice = MRG, Max routes = 3 (with this formula traffic will be routed by margin, and 3 most profitable vendors will be selected as routing options)

Rule 7

Name = Block O2 UK - Client A Premium

Rule type = Block

Priority = 20

Client product names = All

Client products = Client A Premium

MCCMNCs = 234010, 234011

Vendor products = All

Context CLI

Rule 7

Name = Special Route to TIM Brazil for Client A

Rule type = Regular routing

Priority = 90

Client product names = All

Client products = Client A CLI

MCCMNCs = 724002, 724003, 724004, 724008

Choices = Vendor 10, Vendor 11, Vendor 12

Rule 8

Name = General Routing to TIM Brazil

Rule type = Regular routing

Priority = 80

Client product names = All

Client products = All

MCCMNCs = 724002, 724003, 724004, 724008

Choices = Vendor 13, Vendor 14, Vendor 15

Rule 9

Name = General Routing to other countries

Rule type = Regular routing

Priority = 80

Client product names = All

Client products = All

MCCMNCs = All

Choice = MRG, Vendor product list = Vendor 16, Vendor 17, Vendor 18 (the LCR formula will only be applied to the short list of selected vendors)

Context NON-CLI

Rule 10

Name = General Routing to Spain

Rule type = Regular routing

SMS

Priority = 80

Client product names = All

Client products = All

MCCMNCs = 214%

Choices = Vendor 19, Vendor 20, Vendor 21

Rule 11

Name = General Routing to Brazil

Rule type = Regular routing

Priority = 80

Client product names = All

Client products = All

MCCMNCs = 724%

Choices = Vendor 22, Vendor 23, Vendor 24

9.5.4 Routing statistics

The *SMS/Routing/Routing statistics* page serves for supplying initial quality of service (QoS) statistics for new vendors. When a new vendor is added, the System knows nothing about its quality of service, and therefore cannot use it for quality-based routing. The System owner can enter initial data about the vendor's quality in the *Routing statistics* page.

<input type="checkbox"/>	Carrier	Direction	Product	POI
<input type="checkbox"/>	All	All	All	All
<input type="checkbox"/>	Alarislabs_NEW	Client	SMS retail (EUR) - Client	Alarislabs_NEW: 11554
<input type="checkbox"/>	Alice Wondersystems	Vendor	Wholesale (EUR) - Vendor	Alice_trc328
<input type="checkbox"/>	Award Wieners	Vendor	Wholesale (EUR) - Vendor	Porto_trc336
<input type="checkbox"/>	Award Wieners	Vendor	Wholesale (EUR) - Vendor	Porto_trc336
<input type="checkbox"/>	Award Wieners	Vendor	Wholesale (EUR) - Vendor	Porto_trc336
<input type="checkbox"/>	Award Wieners	Vendor	Wholesale (EUR) - Vendor	Porto_trc336
<input type="checkbox"/>	Award Wieners	Vendor	Wholesale (EUR) - Vendor	Porto_trc336
<input type="checkbox"/>	Award Wieners	Vendor	Wholesale (EUR) - Vendor	Porto_trc336
<input type="checkbox"/>	Award Wieners	Vendor	Wholesale (EUR) - Vendor	Porto_trc336
<input type="checkbox"/>	Award Wieners	Vendor	Wholesale (EUR) - Vendor	Porto_trc336
<input type="checkbox"/>	Award Wieners	Vendor	Wholesale (EUR) - Vendor	Porto_trc336

Statistics table

The page contains the  button at the bottom that serves to export the table to a MS Excel file.

The page contains two panels. The left panel is the statistics table, the right panel contains the *Add* and *Edit* tabs.

 Add  Edit	
Carrier*:	Boring Enterprises
Direction*:	Vendor
Product*:	Boring Enterprises - Retail (USD) - Vendor
POI*:	123
Service type:	
MCCMNC*:	222005 
ASR rate:	0.8
DLR rate:	0.9
DLR delay:	20

Add tab

To add a new record to the table, open the *Add* tab and complete the following fields:

- *Carrier*: the partner's name
- *Direction*
- *Product*
- *POI*
- *Service type*
- *MCCMNC*
- *ASR rate*: a decimal value between 0 and 1
- *DLR rate*: a decimal value between 0 and 1
- *DLR delay*: DLR delivery delay in minutes

Click  **Submit** to save the entry or  **Reset** to discard the settings. Once the record appears in the table, the new vendor can be used in configuring routing rules. NOTE: Once the real-life statistics is collected, the record becomes irrelevant.

9.5.5 Simulation

The *SMS\Routing\Simulation* page allows checking the actual behavior of the routing logic at a selected moment by emulating a routing request like the one sent to the routing module by the switch.

The *Simulation* page is divided in three panels. The upper left panel contains the *Simulation* tab shown below.

Simulation		Send SMS	
Traffic type:	MT	Sender ID:	79101234567
Product*:	PocoDinero Enterprises	Dest. number:	17341234567
SMS POI*:	Channel_poco (192.168	Message:	discount 99% for all VIP customers
Router*:	random	Concat. message:	<input type="checkbox"/>
Mode:	single	Time:	<input checked="" type="checkbox"/> Current time
Use router's own addresses:	<input type="checkbox"/>		2019.12.10 14:36:15
Local address*:	<input checked="" type="checkbox"/> Select all <input checked="" type="checkbox"/> 1.1.1.1 <input checked="" type="checkbox"/> 10.123.0.1 peer 1... <input checked="" type="checkbox"/> 10.200.0.26 <input checked="" type="checkbox"/> 10.200.0.27 <input checked="" type="checkbox"/> 127.0.0.1 <input type="checkbox"/> 127.0.0.2		

Simulation tab

To perform the simulation, configure the following parameters:

- *Traffic type*: MO or MT
- *Product*: select the client product from the drop-down list
- *SMS POI*: select the POI from the drop-down list
- *Router*: routing module used for simulation
- *Mode*: the parameter defines the simulation mode and contains the following options:
 - *single*: check routing for a single number
 - *iterative*: launch a series of tasks for the same set of parameters (*Sender ID*, *Destination address*, etc.) to all the available router instances for the number of times defined in the *Iterations* field. The bottom table shows the distribution of traffic between the routes (vendor + POI + MCCMNC + Sender ID + Destination address + Rule) which allows for easier detection of the test rules, traffic shares within one choice and possible problems with a specific router instance
 - *multi*: check multiple routes for multiple preselected MCCMNCs
- *Use router's own addresses*: when selected, the Simulation module will use the SMS channels with *Local address* set as *Use switch default setting* in [Carriers\SMS channels](#)^[120] and the IP addresses that are available on the server with the selected routing module. If the checkbox is disabled, the Simulation module will use *Local addresses* defined in the list below
- *Local address*: select the SMS channel local address. Channels that have *Local address not available* on the switch server will be excluded from the route list
- *Sender ID*: this parameter is used to test routing by A-number (configured in [SMS\Routing\Routing rules\Rules page](#)^[293]) by the Caller ID and ANI pattern parameters. Specify a caller ID tag value or an ANI pattern

- *Dest. number* (available when the *Mode* value is *single*): target number. The field does NOT support blank spaces

NOTE: The *Dest. number* field supports the plus "+" symbol, which allows for more precise validation of routing rules. Additionally, the *cutPlusInDnis* parameter in the SMS router configuration file allows keeping the plus "+" symbol in the destination number if necessary. To activate the parameter, contact the Alaris technical support team and communicate the code BZ28787. See also the [Alaris YouTube](#) video.

- *Message*: text of the SMS (up to 2,000 symbols)
- *Part of long message*: select to simulate routing of a part of a concatenated message - if the routing is triggered for a single segment when *Stateful concatenated messages processing* is disabled or there was a timeout for expecting all the parts
- If *Traffic type* is *MT*, the following fields are available:
 - *Data coding*: if set to 0, the *Default data coding scheme* will be used, as set in the client SMS channel. Additionally, if the message text contains symbols not included in the data coding, the data coding will be selected automatically. For example, if
Message: Test €
Data coding: 3: Latin 1
 data coding 8 will be selected for simulation
 - *Stateful concat. mode*: to simulate sending of messages processed in the stateful concatenated mode (cannot be set simultaneously with the *Part of long message* checkbox)
 - *UDH type* (possible values are: *null*; 0 for UDH length of 6 bytes and 8 for UDH length of 7 bytes): serves to enable more flexible message sending simulation. The parameter can be set when the *Stateful concat. mode* or *Part of long message checkbox* is selected
- *MCCMNC list* (available when the *Mode* value is *multi*): define the MCCMNCs that will be tested
- *Check parent product* (available when the *Mode* value is *multi* and *MCCMNC list* is value is *All*)
- *Time*: set date and time in the calendar or select the *Current time* checkbox

NOTE: The System only uses translation rules, routing rules, rates and agreements active at the time specified in the *Time* column.

When through with defining the parameters, click  **Get routes** to confirm or  **Reset** to discard the settings.

The table in the top right corner of the page displays the results of recently performed simulations:

Task ID	Job created	Product	Mode	SMS channel
TASK198926	2018.10.05 13:14:18	PocoDinero Enterprises - Wholesale (EUR) - Client	single	Iffan_auto235
TASK198922	2018.10.05 13:13:51	PocoDinero Enterprises - Premium (USD) - Client	single	PocoDinero Ent...
TASK198918	2018.10.05 13:13:48	PocoDinero Enterprises - Premium (USD) - Client	single	PocoDinero Ent...
TASK196546	2018.09.10 09:08:36	PocoDinero Enterprises - Premium (USD) - Client	single	PocoDinero Ent...
TASK195080	2018.09.05 13:13:09	PocoDinero Enterprises - Premium (USD) - Client	single	PocoDinero Ent...
TASK193256	2018.08.30 12:22:08	PocoDinero Enterprises - Premium (USD) - Client	single	PocoDinero Ent...
TASK193252	2018.08.30 12:21:52	PocoDinero Enterprises - Premium (USD) - Client	single	PocoDinero Ent...
TASK193248	2018.08.30 12:21:31	PocoDinero Enterprises - Premium (USD) - Client	single	PocoDinero Ent...

Recent simulations table

The table displays the following parameters:

- *Task ID*
- *Job created*: date and time of the task creation
- *Product*: name of the product selected in the *Simulation* tab, its direction and account currency
- *SMS channel*: name of the SMS channel
- *IP*: IP address of the SMS channel used for simulation
- *Service type*: service type of the POI channel used for simulation
- *GUID*: identifier of the POI channel used for simulation
- *Sender ID*: A-number selected in the *Simulation* tab
- *Destination number*: B-number selected in the *Simulation* tab
- *Time*: date and time of the SMS selected in the *Simulation* tab
- *Details*: contains a link to the simulation log ([SMS\Routing\Simulation\Simulation log](#)^[318]). The link to each simulation log can be shared and opened from the outside. The log describes the steps of the routing procedure
- *User*: name of the user that created the simulation task

Click on a record in the table to view the simulation results displayed at the bottom of the page. The results are displayed in a table of vendor routes, listed as they were used for routing. If the route is dynamic, it is displayed in black. If it is static, it is greyed out. Unsuccessful simulations are highlighted in red. The upper (zero) row shows the details of the client route on behalf of which the simulation is performed.

Router	#	Context	Weight	Carrier	Applied translation
All	Min. Max.	All		All	Field name Rule ID Old value New value
10.200.0.26:1752	0			SA_life	Sender NPI 15849 0 6
10.200.0.26:1752	1	DEFAULT		SA_Test	Flash message 15852 8
					Destination TON 15850 1 6
					Registered deliv... 15851 0
					Sender ID 15845 test Facebook
					Destination NPI 15853 1 6

Vendor routes

The table displays the following parameters:

- *Router*: the IP address and port of the router used in simulation. For simulations with the *Mode = multi*, the field contains multiple links that allow viewing the log for each simulation separately
- *#*: sequence number
- *Context*: context of the routing rule. Several vendors can be selected for routing according to different rules
- *Weight*: vendor weight (starts with the word FIXED for static routes, since no weight calculation is done for them)
- *Carrier*: in the upper row - name of the client used for simulation, in all the other rows – names of the selected vendors
- *Product*: in the upper row - client product type used for simulation, in all the other rows – types of the selected vendor products
- *GUID*: identifier of the selected vendor's POI
- *Service type*: service type of the selected vendor's POI
- *Vend. caller ID*: vendor's caller ID
- *Dest number*: target number used for simulation
- *e212*: MCCMNC of the rate selected for a vendor in routing
- *ASR*: answer seizure ratio of the product and MCCMNC
- *DLR*: delivery rate
- *Count*: number of sent messages
- *Rate*: in the upper row - rate from the client's side, in the remaining rows – termination rates from vendors
- *Margin*: margin for the route
- *Margin, %*: the value is calculated by the formula $\text{Margin}(\%) = (\text{Revenue} - \text{Cost}) / \text{Cost}$. Find out more in the [Alaris YouTube video](#)
- *Rule ID*: link to the used routing rule (click to open the rule for editing)
- *DLR*: delivery rate of the simulation

The *Applied translation* table at the right shows:

- for the selected client route: pre-routing translations applied for all the routes
- for the selected vendor route: post-routing translations applied for the selected vendor route

Click the  button to start the simulation again.

9.5.5.1 Simulation log

The simulation log is used for troubleshooting purposes. It comes instrumental if something goes wrong during the simulation process – for example, unexpected routes or no routes at all are found. To view the log for a particular simulation task, click on the view log link of the appropriate record in the tasks table (Details column).

Dest. number	Time	Details	User name
			All <input type="button" value="v"/>
17341234567	2016.09.06 16:20:17	 view log	Alaris
17341234567	2016.09.06 16:18:59	 view log	Alaris

View log link

The log contains the following sections:

- *initial data*: simulation input parameters
- *looking for client*: client identification
- *looking for client rates*
- *looking for vendor rates*
- *looking for routing rules*

```

===== route search trace =====
----- initial data -----
ANI/DNIS      empty / 573012225005
guid          F79CDA2A-4575-A9FA-954C-0046CBD55295
serviceType
setup time    1431373569.67
target time   2015-05-11 22:46:10(1431373570.0)
VUA           NOT VUA (False)
ForcedMCCMNC

----- STAGE 1: looking for client -----
client searching status - SMS channel id 11325, SMS POI id 10677
Client SMS POI id <10677>, valid 1381780800.0-1893445200.0
Client SMS channel id <11325>, enabled - 1
Client product id <99842>, code <Wholesale>, code <Wholesale>
Client account id <11414>, balance 80.2489, limit <no limit>
Client operator id <1393>, name <Dorado El Telecom - Gold>, inbound allowed 1, trusted - 1
MCCMNC <732165> for DNIS <573012225005> found
Network <ColombiaMovilsAESP> and country <Colombia> with refId 1033 found for MCCMNC <732165>
Client currency and rate - EUR, 1.24636

----- looking for client rates -----
Looking for rates for product 99842, parent product None
  Check E212 <732165>, rate ID 3832585/cost 0.17400 - skipped as OBSOLETE
  Check E212 <732165>, rate ID 3845822/cost 0.10160 - skipped as OBSOLETE

```

Simulation log

Each of the log sections is explained in the figures below.

A-number/
B-number

The number of parts
the SMS is broken into

```
===== route search trace =====
----- initial data -----
ANI/DNIS      79107940423 / 17341234567, ToN 1/1, NPI 1/1, DC 0, parts 1
guid          25373EBB-7B7C-14C7-5746-7E4FE018531E
text          discount
serviceType
setup time    1473168017.8
target time   2016-09-06 16:20:17(1473168017.0)
VUA           NOT VUA (False)
ForcedMCCMNC
```

The client GUID on behalf of which
the simulation was performed

Initial data

SMS channel

SMS POI

SMS POI valid

```
----- STAGE 1: looking for client -----
client searching status - SMS channel id 11708, SMS POI id 10683
Client SMS POI id <10683>, valid 1389470400.0-1509915600.0
Client SMS channel id <11708>, enabled - 1
Client product id <99868>, code <Wholesale>, code <Wholesale>, mode (0)<UNKNOWN>
Client account id <11433>, balance -14425.8930, limit 100000.0000
Client operator id <1412>, name <PocoDinero Enterprises>, inbound allowed 1, trusted - 0
MCCMNC search data:
  LOT 50, pfx <1734>, mccmnc <310779>, 01.01.2000-31.12.2030
  LOT 50, pfx <1>, mccmnc <310>, 01.01.2000-31.12.2030
  LOT 10, pfx <1>, mccmnc <330996>, 01.01.2000-31.12.2030
  LOT 10, pfx <1>, mccmnc <330997>, 01.01.2000-31.12.2030
```

SMS channel enabled

Client carrier ID,
name and
direction

MCCMNC search results by prefix. The top line (1734
prefix) is the most precise match

Client balance
limit positive

```
  LOT 10, pfx <1>, mccmnc <302340>, 01.01.2000-31.12.2030
  LOT 10, pfx <1>, mccmnc <330120>, 01.01.2000-31.12.2030
MCCMNC <310779> for DNIS <17341234567> found
Network <United States - Proper> and country <United States of America> with refID
Client currency and rate - EUR, 1.00000
```

MCCMNC found

Network and country identified

Client currency and its rate to
the System currency

Looking for client

NOTE: The channel name, POI, product, account and carrier can be looked up by their respective IDs in the [Carriers](#)^[99] section.

```

----- looking for client rates -----
Client product chain - 99868
  Check E212 <310779>, dialcode <>, prod 99868,
    rate ID 3878522/cost 0.00740 - selected (w: 100)
  Check E212 <310779>, dialcode <>, prod 99868,
    rate ID 3392112/cost 0.00750 - skipped as OBSOLETE
Use client rate id 3878522, mccmnc <310779>, dialcode <>,
system/acct cur cost <(M)0.00740>/<0.00740>
  
```

Rate is valid

Client rate
selectedcost in system/account
currency

Rate is obsolete

Looking for client rates

```

----- looking for vendor rates -----
3 vendor rates found for MCCMNC <310779>:
  rate (None, 3893331, 100030, '310779', 1428008400, 1924981199, 0, 0.00079999)
  Check MCMNC <310779>, rate ID 3893331/cost 0.00080 - selected
  rate (None, 3721675, 100045, '310779', 1416258000, 1924981199, 0, 0.0, '')
  Check MCMNC <310779>, rate ID 3721675/cost 0.00000 - selected
  rate (None, 3319555, 99886, '310779', 1398110400, 1924981199, 0, 0.00310000)
  Check MCMNC <310779>, rate ID 3319555/cost 0.00310 - selected
10 vendor rates found for MCC code <310>:
  rate (None, 3920782, 100096, '310', 147328200, 1924981199, 0, 0.00200000009)
  Check MCMNC <310>, rate ID 3920782/cost 0.00200 - selected
  rate (None, 3920780, 100096, '310', 1924981199, 1924981199, 0, 0.02587999962)
  Check MCMNC <310>, rate ID 3920780/cost 0.02588 - skipped as OBSOLETE
  rate (None, 3919868, 100096, '310', 1470182400, 1924981199, 0, 0.02587999962)
  Check MCMNC <310>, rate ID 3919868/cost 0.02588 - skipped as OBSOLETE
  rate (None, 3840351, 99963, '310', 1427538480, 1924981199, 0, 0.043200001120)
  Check MCMNC <310>, rate ID 3840351/cost 0.04320 - selected
  
```

3 vendor rates found
for MCMNC 31077910 vendor rates found
for MCC 310

Looking for vendor rates

Vendor rate search result
 (3 for MCCMNC310779
 and 10 for MCCMNC 310)

Validity period

Vendor rate cost

Following vendor rates found:

```
mccmnc <310779>, prod id 100030, rate id 3893331, value 0.00080, valid 2015-04-03 00:00:00
mccmnc <310779>, prod id 100045, rate id 3721675, value 0.00000, valid 2014-11-18 00:00:00
mccmnc <310779>, prod id 99886, rate id 3319555, value 0.00310, valid 2014-04-22 00:00:00
mccmnc <310>, prod id 100096, rate id 3920782, value 0.00200, valid 2016-09-06 00:00:00
mccmnc <310>, prod id 99963, rate id 3840351, value 0.04320, valid 2015-03-28 13:28:00
mccmnc <310>, prod id 99901, rate id 3804887, value 0.01160, valid 2015-02-26 16:38:00
mccmnc <310>, prod id 99985, rate id 3821474, value 0.00460, valid 2015-03-11 23:00:00
mccmnc <310>, prod id 100030, rate id 3892062, value 0.00090, valid 2015-04-03 00:00:00
mccmnc <310>, prod id 99939, rate id 3793900, value 0.00370, valid 2015-02-18 17:00:00
mccmnc <310>, prod id 99933, rate id 3316782, value 0.05780, valid 2015-03-18 09:11:00
mccmnc <310>, prod id 99886, rate id 2973563, value 0.00370, valid 2015-03-24 08:43:00
mccmnc <310>, prod id 99869, rate id 2784821, value 0.03500, valid 2015-03-15 23:00:00
mccmnc <310>, prod id 99873, rate id 2710501, value 0.00520, valid 2015-03-10 00:00:00
```

Vendor rate search results

Checking for rates with the word
 BLOCKED in Rate notes (none found)

Rate cost in System and
 account currency

Checking for BLOCKED rates:

Vendor rates after filtering (one most expensive rate per vendor product):

```
1  mccmnc <310779>, prod id 100096, rate id 3920782, system/acct cur value 0.00200
2  mccmnc <310779>, prod id 99873, rate id 2710501, system/acct cur value 0.00520
3  mccmnc <310779>, prod id 99939, rate id 3793900, system/acct cur value 0.00370
4  mccmnc <310779>, prod id 100045, rate id 3721675, system/acct cur value 0.00000
5  mccmnc <310779>, prod id 99886, rate id 3319555, system/acct cur value 0.00310
6  mccmnc <310779>, prod id 99933, rate id 3316782, system/acct cur value 0.05780
7  mccmnc <310779>, prod id 99985, rate id 3821474, system/acct cur value 0.00460
8  mccmnc <310779>, prod id 99963, rate id 3840351, system/acct cur value 0.04320
9  mccmnc <310779>, prod id 99869, rate id 2784821, system/acct cur value 0.03500
10 mccmnc <310779>, prod id 99901, rate id 3804887, system/acct cur value 0.01160
11 mccmnc <310779>, prod id 100030, rate id 3893331, system/acct cur value 0.00080
```

Checking for blocked rates; vendor rates list

Searching POI list and checking vendor product billing mode:

```

Product 100096, cost 0.00200, billing mode (M 0-0)
Product 99873, cost 0.00520, billing mode (M 0-0)
Product 99873, SMS POI 10544, SMS channel 0 is disable, skipped
Product 99939, cost 0.00370, billing mode (M 0-0)
Product 100045, cost 0.00000, billing mode (M 0-0)
Product 99886, cost 0.00310, billing mode (M 0-0)
Product 99886, SMS POI 10644 is obsolete, skipped
Product 99886, SMS POI 10614, SMS channel 0 is disable, skipped
Product 99933, cost 0.05780, billing mode (M 0-0)
Product 99985, cost 0.00460, billing mode (M 0-0)
Product 99963, cost 0.04320, billing mode (M 0-0)
Vendor ID 1412 is a client, skipped
Product 99901, cost 0.01160, billing mode (M 0-0)
Product 100030, cost 0.00080, billing mode (M 0-0)
  
```

SMS channel
is disabled

SMS POI is
obsolete

The carrier is the client on
behalf of which the
simulation is done

Searching POI list

Final list of vendors
suitable for routing

```

Following vendor SMSC found:
Oper 389, acct 377, mccmnc <310>, prod 100096 (0)<UNKNOWN>, rate ID/code/value 3!
SMSC id/sType/SMS_Ch 11280//12100
Oper 1414, acct 11435, mccmnc <310>, prod 99873 (0)<UNKNOWN>, rate ID/code/value
SMSC id/sType/SMS_Ch 10581//11539
Oper 1443, acct 11464, mccmnc <310>, prod 99939 (0)<UNKNOWN>, rate ID/code/value
SMSC id/sType/SMS_Ch 10928//11640
SMSC id/sType/SMS_Ch 10929//11638
ANI prefix tags ['Black List']
  
```

A-number has the 'Black list' tag
(*Reference books\Caller ID tag*)

List of vendor SMSC

```

----- STAGE 5: looking for routing rules (.9 routes found) -----
--
context DEFAULT, rule <Test_ssl> id <10023>, type REGULAR, prio 100 -
dropped, rule outdated
context DEFAULT, rule <Premium SMS China Route> id <10012>, type REGULAR,
prio 100 - dropped by INCLUSIVE client product type filter
context DEFAULT, rule <Test for Alaris mobile> id <10010>, type REGULAR,
prio 99 - dropped by INCLUSIVE netId filter
context DEFAULT, rule <Switch to PREMIUM> id <10009>, type REGULAR, prio 99
- dropped by INCLUSIVE client product type filter
context DEFAULT, rule <Switch to WHOLESAL2> id <10001>, type REGULAR, prio
95 - selected
  Key list.: {'dstNpi': 1, 'srcTon': 1, 'partAmount': 1, 'messageText':
'discount', 'ani': '79107940423', 'dstTon': 1, 'setupTime': '', 'dc': 0,
'srv_type': '', 'srcNpi': 1, 'dnis': '17341234567', 'customer_id': '25373EBB-
7B7C-14C7-5746-7E4FE018531E'}
context WHOLESAL2, rule <Hen blocking> id <10013>, type BLOCK, prio 90 -
selected
  Vendor product id 100030 blocked, route 8
context WHOLESAL2, rule <ABISON TEST> id <10011>, type REGULAR, prio 99 -
dropped by INCLUSIVE client product filter
context WHOLESAL2, rule <Test> id <10000>, type REGULAR, prio 99 - selected
  
```

The rule is
dropped as
inactive

The rule is
dropped as it has
the wrong
product type

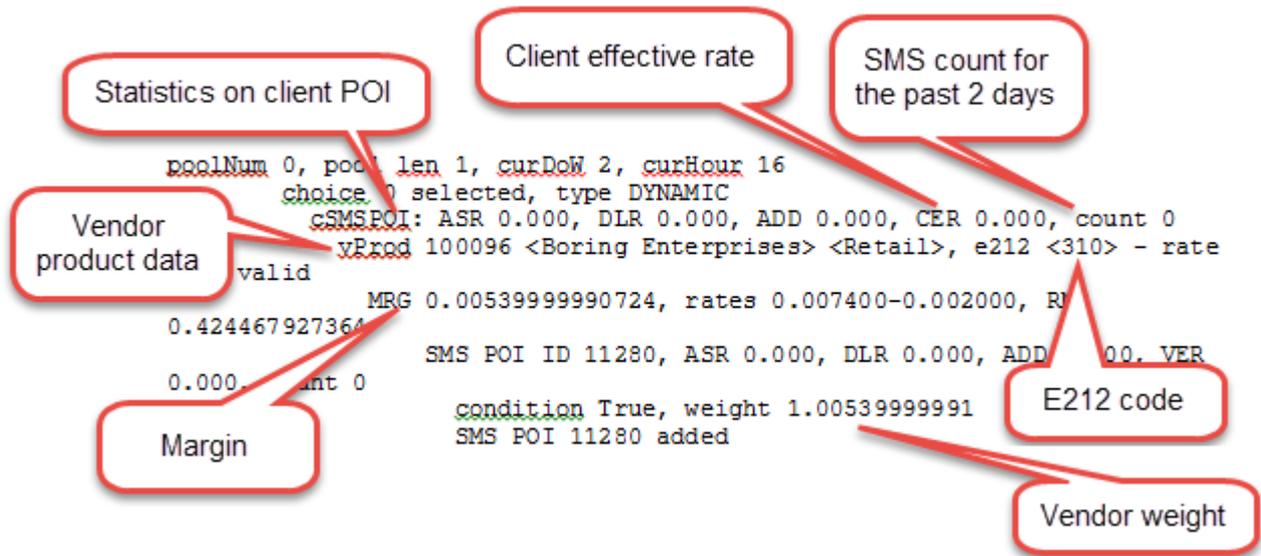
The rule
performs
context
switching
from
DEFAULT to
WHOLESAL2

The rule
type is
BLOCK, the
vendor ID
100030 is
dropped as
unsuitable
for routing

Rule selected

Looking for routing rules

NOTE: The rules with the BLOCK type are processed first, irrespective of their priority; this is why after the context was switched to WHOLESAL2 in the figure above, the rule <Hen blocking> with the priority 90 was handled earlier than the rules with higher priorities such as <ABISON TEST> or <Test> (both having priority 99).



Statistics on client POI

Client effective rate

SMS count for the past 2 days

Vendor product data

Margin

E212 code

Vendor weight

```
poolNum 0, pool len 1, curDow 2, curHour 16
choice 0 selected, type DYNAMIC
cSMSPOI: ASR 0.000, DLR 0.000, ADD 0.000, CER 0.000, count 0
vProd 100096 <Boring Enterprises> <Retail>, e212 <310> - rate
valid
MRG 0.00539999990724, rates 0.007400-0.002000, R
0.424467927364
SMS POI ID 11280, ASR 0.000, DLR 0.000, ADD 0.000, VER
0.000, count 0
condition True, weight 1.00539999991
SMS POI 11280 added
```

One of selected routing rules

```
Route added: 1. vProd 100045-LCR, SMS POI 10962
<17341234567>, ToN/NPI/RD/F (1, 1, 1, 1, None, N
Route added: 2. vProd 100096-Retail, SMS POI 11
ToN/NPI/RD/F (1, 1, 1, 1, None, None), trRule:
Route added: 3. vProd 99939-Wholesale, SMS POI
<79107940423>, DNIS <17341234567>, ToN/NPI/RD/F
Route added: 4. vProd 99939-Wholesale, SMS POI
<79107940423>, DNIS <17341234567>, ToN/NPI/RD/F
Route added: 5. vProd 99985-Wholesale, SMS POI
<79107940423>, DNIS <17341234567>, ToN/NPI/RD/F
Route added: 6. vProd 99873-Wholesale, SMS POI
<79107940423>, DNIS <17341234567>, ToN/NPI/RD/F
Route added: 7. vProd 99901-Wholesale, SMS POI
<79107940423>, DNIS <17341234567>, ToN/NPI/RD/F
Route added: 8. vProd 99963-Premium, SMS POI 10
<79107940423>, DNIS <17341234567>, ToN/NPI/RD/F
Route added: 9. vProd 99933-Wholesale, SMS POI
<79107940423>, DNIS <17341234567>, ToN/NPI/RD/F
```

Summary of added routing rules

If the message text required translation, the translation result is shown at the end of the log (see figure above).

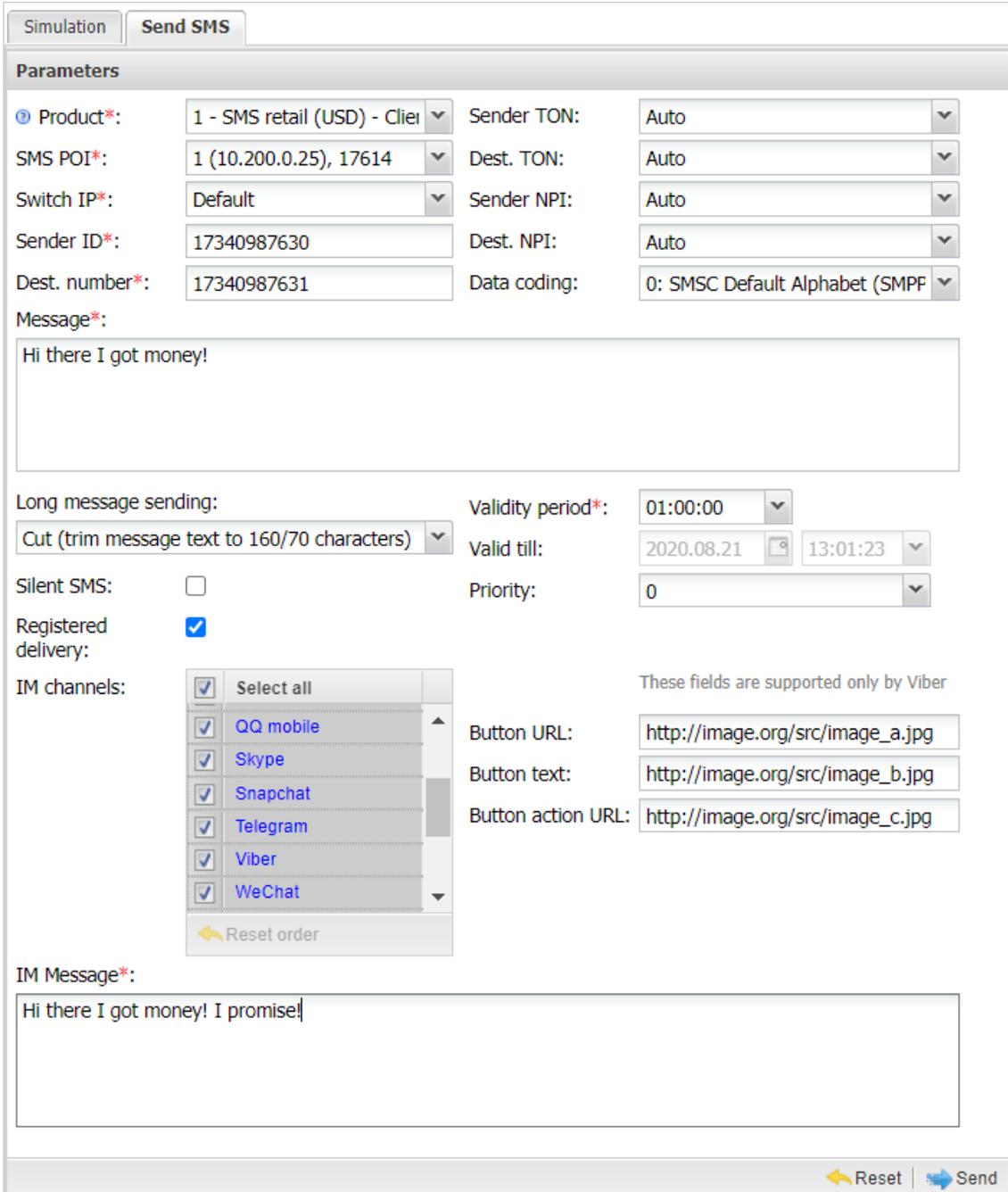
N	Context	Weight	Vendor	Product	
1	WHOLESALE	1.01	Topics Entertai	LCR	(10962)
2	WHOLESALE	1.01	Boring Enterpri	Retail	(11280)
3	WHOLESALE	1.00	ConchisCall	Wholesale	(10928)
4	WHOLESALE	1.00	ConchisCall	Wholesale	(10929)
5	WHOLESALE	1.00	Glasgow Rangers	Wholesale	(10944)

Final routing table

9.5.5.2 Send SMS

The *Send SMS* page allows configuring and sending test messages on behalf of a client. Clients whose settings are used are not charged for test messages, but the System applies the routing logic the way it would do for an SMS received from that customer.

NOTE: The test messages will be originated from and paid for by the System owner.



The screenshot shows the 'Send SMS' configuration interface. It features two tabs: 'Simulation' and 'Send SMS'. The 'Send SMS' tab is active, displaying a 'Parameters' section with various input fields and dropdown menus. The 'Product*' field is set to '1 - SMS retail (USD) - Clier'. The 'SMS POI*' field is set to '1 (10.200.0.25), 17614'. The 'Switch IP*' field is set to 'Default'. The 'Sender ID*' field is set to '17340987630'. The 'Dest. number*' field is set to '17340987631'. The 'Sender TON', 'Dest. TON', 'Sender NPI', and 'Dest. NPI' fields are all set to 'Auto'. The 'Data coding' field is set to '0: SMSC Default Alphabet (SMPP)'. The 'Message*' field contains the text 'Hi there I got money!'. Below the message field, there are options for 'Long message sending' (set to 'Cut (trim message text to 160/70 characters)'), 'Validity period*' (set to '01:00:00'), 'Valid till' (set to '2020.08.21 13:01:23'), 'Priority' (set to '0'), 'Silent SMS' (unchecked), and 'Registered delivery' (checked). The 'IM channels' section includes a list of channels with checkboxes: 'Select all', 'QQ mobile', 'Skype', 'Snapchat', 'Telegram', 'Viber', and 'WeChat'. The 'Button URL', 'Button text', and 'Button action URL' fields are all set to 'http://image.org/src/image_a.jpg', 'http://image.org/src/image_b.jpg', and 'http://image.org/src/image_c.jpg' respectively. The 'IM Message*' field contains the text 'Hi there I got money! I promise!'. At the bottom right, there are 'Reset' and 'Send' buttons.

Send SMS tab

The tab allows configuration of the following parameters:

- *Product*: client's product
- *SMS POI*: client's POI for the test message

- *Switch IP*: the switch used for the test message (list of switches is configured in the parameter *Switch IP list for test message sending* in [Administration\System settings\SMS](#)^[56])
- *Sender ID*: A-number
- *Dest. number*: B-number

NOTE: The *Dest. number* field supports the plus "+" symbol, which allows for more precise validation of routing rules. Additionally, the *cutPlusInDnis* parameter in the SMS router configuration file allows keeping the plus "+" symbol in the destination number if necessary. To activate the parameter, contact the Alaris technical support team and communicate the code BZ28787. See also the [Alaris YouTube](#) video.

- *Source TON / Source NPI / Dest. TON / Dest. NPI (optional)*
- *Data coding*: message text encoding
- *Message*: text of the test message
- *Long message sending*: specify how the System should send messages exceeding the standard length
- *Validity period (required)* - the period during which the SMS sending attempts will be performed
- *Valid till (uneditable, for reference only)*
- *Silent SMS*: select to test the silent mode of SMS sending (a message is sent with a special data coding, and the message arrives with no sound). Find out more in the [Alaris YouTube video](#)
- *Registered delivery*: when selected, the submit request will be sent with the *registered_delivery* flag set to 1. If the flag is set to 0, the vendor is not guaranteed to return a delivery report
- *Priority*: message priority in the GSM network
- *IM channels*: select the channels for simulation. If at least one IM channel is selected, the following fields become available:
 - *IM message*: the text of the instant message
 - *Image URL* (specific for Viber messages (*promotion* type)): the link to an image sent in the message
 - *Button caption* (specific for Viber messages (*promotion* type)): the link to a button sent in the message
 - *Button action URL* (specific for Viber messages (*promotion* type)): URL opened when clicking the button sent in *Button caption*

When through with defining the parameters, click  **Send** to send a message or  **Reset** to discard the settings.

The results will be displayed in the right hand panel containing the following details:

- *Status*: *true* (message delivered) or *false* (message not delivered)
- *Output*: *transaction_id* if the message is delivered or error description if an error occurred

9.5.6 Translation rules

The *SMS\Routing\Translation rules* page serves to configure regular expressions for transforming various parameters of an SMS as it is transferred from one carrier to another, as well as error and status codes. The page contains three tab sheets: *Message parameters*, *Error and status codes* and *Code list*.

The *Message parameters*, *Error and status codes* tab sheets contain the  button at the bottom that serves to export the table to a MS Excel file.

The *Message parameters* tab sheet shows a table of translation rules; the *Add* and *Edit* tabs that allow adding and editing records.

NOTE: Filters in the table support % and * wildcards. Each of them stands for any number of any symbols.

ID	Entity	Start date	End date	Priority	Client product
	All	$-\infty \leq X \leq \infty$	$-\infty \leq X \leq \infty$	Mir Ma	All
10001	Sender ID	2016.09.12 00:00:00	2100.01.01 00:00:00	90	PocoDinero Ent
10002	Destination TON	2016.09.12 00:00:00	2100.01.01 00:00:00	0	Atlantic Credit

Message parameters tab sheet

The bottom of the *Message parameters* tab sheet contains the *hide inactive* checkbox that serves to hide disabled rules from the table (those having the *Enabled* checkbox deselected).

 Add
 Edit

Name*:

Enabled

Traffic type*:

Stage*:

Entity*:

Next action*:

Start date*:

End date*:

Priority*:

Apply to

Client products:

Vendor products:

 Edit list

Alice Wondersystems - Wholesale - (EUR) - Vendor ✖

Add tab (part 1)

The *Add* tab contains the following fields:

- *Name*
- *Enabled*: select to make the rule active

- *Traffic type:*
 - *MO:* mobile originated
 - *MT:* mobile terminated
- *Stage:*
 - *Pre-routing:* perform the translation after client authorization. Pre-routing translations are suitable, for example, in case it is required to change the destination number (removing the + character or adding the country code) before the System starts dipping HLR or going through the reference book
 - *Post-routing:* perform the translation after the route list is completed
- *Entity:* the SMS parameter to be transformed. Possible values include:
 - *Sender ID:* select this parameter to transform the sender ID from numeric to alpha values or vice versa.

NOTE: For correct translation, two rules must be created: one with the *Sender ID* selected as the *Entity*, the other with the *Sender TON*.

- *Destination number:* the parameter is used when a partner sends or wants traffic in a non-E164 numbering format
- *Sender TON:* a numeric value denoting the sender's type of number (*Unknown (0)*, *International (1)*, *National (2)*, *Network specific (3)*, *Subscriber number (4)*, *Alphanumeric (5)*, *Abbreviated (6)*). Typically, the parameter is used when the *Sender ID* needs to be transformed from numeric to alpha values or vice versa.

NOTE: For correct translation, two rules must be created: one with the *Sender ID* selected as the *Entity*, the other with the *Sender TON*.

- *Sender NPI:* a numeric value denoting the Sender's numbering plan ID (*Unknown (0)*, *ISDN/telephone numbering plan (E163/E164)(1)*, *Data numbering plan (X.121)(2)*, *Telex numbering plan (F.69)(4)*, *Land mobile (E.212)(6)*, *National numbering plan (8)*, *Private numbering plan (9)*, *ERMES numbering plan (ETSI DE/PS 3 01-3)(10)*, *Internet (IP)(13)*, *WAP client ID (18)*)
- *Destination TON, Destination NPI:* the parameters are similar to *Sender ID* and *Sender NPI*. They are normally used for translation between a national and international number plans
- *Registered delivery:* use this parameter to change the value of the *registered_delivery* flag of the *submit_sm* packet. NOTE: This parameter is used when for some reason the client fails to provide DLR reports. Create a rule translating the flag value from 0 to 1 to request DLR reports from the vendor
- *Flash message:* this flag allows transforming regular messages to flash SMS and vice versa
- *Message text:* select to configure translation of SMS text

NOTE 1: During translation, the SMS text is modified and encoded in UTF-8. Then the System tries to encode the translated message back to the original datacoding. If the translated message cannot be re-encoded back to the original encoding, it is translated to UCS2 (Unicode). If the resulting message does not exceed the message length limit for the final datacoding parameter, the message is sent to vendors. Otherwise the message is rejected. This message encoding logic is not applied to concatenated (UDH or SAR) messages. Also, before sending the translated message to a particular vendor channel the System

may have to perform additional text encodings, depending on the allowed datacoding list for the vendor channel.

NOTE 2: Text translation will not be applied to a concatenated message even though the simulation result is displayed as successful.

- *Next action* (available if *Entity* is *Message text*): possible values are:
 - *continue*: search for the next rule until the System runs out of rules or reaches a rule with *Next action = hunt stop*. Each matching translation rule is applied one after another - it means that several consecutive translations are performed
 - *hunt stop*: stop the search
- *Start date, End date*: the period during which the rule is valid
- *Priority*: serves to set the priority for several rules with overlapping parameters. For example, suppose rule No1 changes *registered_delivery* for all messages from 0 to 1, while rule No2 changes *registered_delivery* for messages in Greece to 0. In this case it is reasonable to set a higher priority for Rule No2.

NOTE: In case several rules have the same priority, the System first selects the one with a higher ID.

Apply to

Client products:

Vendor products:

MCCMNC list:

Sender ID pattern:

Sender ID tag(s):

Edit list	
Facebook	✘
Black List	✘
Source number	✘

Dest. number pattern:

Text pattern:

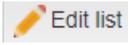
Add tab, Apply to (part 2)

Apply to: the section serves to configure the parameters of the source SMS messages that must be translated:

- *Client products, Vendor products*: select *All* or *Inclusive list* and indicate the list values
- *MCCMNC list*: select *All* or *Inclusive list* and indicate the list values

- *Sender ID pattern*: sender ID pattern (regular expression)

NOTE: If the *Entity* value is *Sender TON*, *Sender NPI*, *Destination TON*, or *Destination NPI*, and the sender ID was changed during translation, the *ANI pattern* filter for subsequent translation rules is applied to the translated sender ID (and not to the source sender ID). Example: suppose Translation rule #1 translates all sender IDs to the text 'Operator'. Translation rule #2 translates the TON to '1', with the *ANI pattern* value "79200200200". In this case, Translation rule #2 will not be applied even if the SMS is sent from number 79200200200, as this ANI will be translated by Translation rule #1 to 'Operator', and the *ANI pattern* of Translation rule #2 is not equal to 'Operator'.

- *Sender ID tag(s)*: select *Inclusive tag* or *Exclusive tag*. In the edit box that appears, click  and specify one or several tags (as defined in [Reference books\Tags](#)^[160])
- *Dest. number pattern*: B-number pattern (regular expression)
- *Text pattern*: the text pattern that must be contained in the source SMS message. Find out more about the feature in the [Alaris YouTube video](#).

Translation

Pattern: **(.*)msg(.*)**

Translation*:

Treat as substitution
 When enabled, allows for multiple substitution, otherwise - works as regular expression.

Example:

1) To replace word **Test with Alaris** only for the first occurrence:
 Pattern: **(.*)Test(.*)**
 Translation: **\g<1>Alaris\g<2>**
Option must be disabled

2) To replace word **Test with Alaris** (multiple occurrences):
 Pattern: **(.*)Test(.*)**
 Translation: **Test|Alaris**
Pattern is needed to define if the message is suitable and translation will replace character set before | with the one after it.

Tag:

Comments:

Add tab, Translation (part 3)

Translation: the section serves to configure how the SMS message will be translated

- *Pattern* (uneditable): displays the content of *ANI pattern*, *DNIS pattern* or *Text pattern* field
- *Translation*: the regexp-based rule
- *Treat as substitution*: select to replace multiple occurrences of the text string. When deselected, the *Translation* field is interpreted as a regular expression

- *Tag* (active when *Entity* = *Sender ID* and the *Translation* field is empty): when a value is specified in this field, the SMS will receive a new sender ID randomly selected from the specified caller ID tag (tags are configured in [Reference books\Tags](#) ⁽¹⁶⁰⁾)
- *Comments*: arbitrary notes

Below are some examples of regular expressions and translation rules.

ANI pattern:

[a-zA-Z0-9_]* - alphanumeric

[0-9]* - numeric

340[0-9]* - numeric beginning with 340

DNIS pattern:

[0-9]{10,12} – numeric between 10 and 12 digits

34[0-9]{10} – prefix 34 + 10 digits

Example of translation (for Sender ID):

ANI pattern:

([0-9]{4})* - any numeric number, the first 4 digits of which are saved into group 1

Translation:

\g<1>10500 - use group 1 from the source ANI and add 10500

Translation of message text

Text pattern:

- Deleting a word from the source text (only the first occurrence will be erased)
 - Text pattern: (.*?)word(.*?)
 - Translation: \g<1>\g<2>
- Adding a word to the end of the text
 - Text pattern: (.*?)
 - Translation: \g<1>word
- Replacing a word:
 - Text pattern: (.*?)word(.*?)
 - Translation: \g<1>verb\g<2>
- Replacing all occurrences of a word in the text (for example, replace all occurrences of *word* with *verb*):

- Text pattern: (.*?)word(.*?)
- Translation: word|verb

Learn more about the feature in [Alaris Youtube video](#).

NOTE: If the text length exceeds the limit defined for a specific character, extra symbols from the end of the message are removed.

Fields marked with an asterisk (*) are required. When through with defining the parameters, click  **Submit** to confirm or  **Reset** to discard the settings. Click  **Delete** to delete the selected record.

Click  **Clone** to clone the selected record in the table. The ID of the cloned rule will be inserted in the *Name* field. This will allow the user to clearly identify the rule that was cloned. See also the [Alaris YouTube video](#).

The *Error and status codes* and *Code list* tab sheets serve to configure translation rules for submit_sm_resp and deliver_sm codes. Translation is needed because there is no uniform standard for code transfer, and each carrier's switch may generate their own codes that may not be correctly interpreted by a partner's switch. To configure code translation, proceed as follows:

- Open the *Code list* tab sheet and configure the appropriate System codes
- Open the *Error and status codes* table and configure translation rules

The *Code list* tab sheet serves to configure a reference book of possible System's codes. It contains two tables: the top table displays the Submit response status codes (submit_sm_resp); the bottom table shows System delivery error codes (deliver_sm).

★ Start page | Translation rules				
Message parameters		Error and status codes		Code list
Submit response status				
ID	Type	Status code	Description	Error code
109	SMPP	192	Error in the optional part of the PDU body	ESME_RINVTLVSTREAM
110	SMPP	193	TLV not allowed	ESME_RTLVNOTALLWD
111	SMPP	194	Invalid parameter length	ESME_RINVTLVLEN
112	SMPP	195	Expected TLV missing	ESME_RMISSINGTLV
113	SMPP	196	Invalid TLV value	ESME_RINVTLVVAL
114	SMPP	254	Transaction delivery failure	ESME_RDELIVERYFAILURE
115	SMPP	255	Unknown error	ESME_RUNKNOWNERR
116	SMPP	256	ESME not authorised to use specified servicetype	ESME_RSERTYPUNAUTH
117	SMPP	257	ESME prohibited from using specified operation	ESME_RPROHIBITED
118	SMPP	258	Specified servicetype is unavailable	ESME_RSERTYPUNAVAIL
119	SMPP	259	Specified servicetype is denied	ESME_RSERTYPDENIED
120	SMPP	260	Invalid data coding scheme	ESME_RINVDCS
121	SMPP	261	Invalid source address subunit	ESME_RINVSRCADDRSUBUNIT
122	SMPP	262	Invalid destination address subunit	ESME_RINVSTDADDRSUBUNIR

Submit response status codes

+ Add
 ✎ Edit

Type*:

Status code*:

Description:

Error code*:

Add tab (Submit response status)

The *Add* and *Edit* tabs contains the following parameters:

- *Type*: SMPP or HTTP
- *Status code*: the submit response status code
- *Description*
- *Error code*: active if *SMPP* is selected in the *Type* field

Click ✔ **Submit** to save the changes. The entry will appear in the table.

The bottom table contains a list of System delivery error codes.

System delivery error code		
ID	Error code	Description
0	*	All
1	000	Message delivered
2	001	Delivery failed
3	002	Subscriber not available

System delivery error codes

+ Add
 ✎ Edit

Error code*:

Description:

Add tab (System delivery error codes)

The *Add* and *Edit* tabs contains the following parameters:

- *Error code*
- *Description*

Click ✔ **Submit** to save the changes. The entry will appear in the table.

The *Error and status codes* tab sheet serves to configure translation rules for `submit_sm_resp`, `deliver_sm` codes and status codes.

ID	Direction	Translation type	Carrier	Bind type	Host	Channel list
1	Client	Routing response code to EDR message sta...	All	All	All	All
2	Client	Routing response code to EDR message sta...	All	All	All	All
3	Client	Routing response code to EDR message sta...	All	All	All	All
4	Client	Routing response code to EDR message sta...	All	All	All	All
5	Client	Routing response code to EDR message sta...	All	All	All	All
6	Client	Routing response code to EDR message sta...	All	All	All	All
7	Client	Routing response code to EDR message sta...	All	All	All	All
8	Client	Routing response code to EDR message sta...	All	All	All	All
9	Client	Routing response code to EDR message sta...	All	All	All	All
10	Client	Routing response code to EDR message sta...	All	All	All	All
11	Client	Routing response code to EDR message sta...	All	All	All	All
12	Client	Routing response code to EDR message sta...	All	All	All	All

Error and status codes

Add
 Edit

Direction:

Translation type*:

all channels

Carrier*:

Channel list*: Select all
 Iffan_auto235
 Iffan_trc314
 Iffan_auto389
 PocoDinero Enterprises
 PocoDinero Enterprises

Source code*:

Resulting code*:

Add tab (Error and status codes)

The Add and Edit tabs serves to configure translation rules and contains the following parameters:

- *Direction*: Client or Vendor
- *Translation type*: translation options. Based on the selected direction, possible values include (depending on the direction):
 - SMPP vendor delivery ERR code to system code
 - HTTP vendor delivery ERR code to system code
 - SMPP vendor delivery status to system status
 - HTTP vendor delivery status to system status
 - System code to client HTTP response code
 - System code to client submit_sm_resp

- System delivery ERR code to client HTTP ERR code
- System delivery ERR code to client SMPP ERR code
- System delivery status to HTTP client status
- System delivery status to SMPP client status
- Routing response code to EDR message status text
- SMPP vendor delivery status:err_code to system status: serves to translate the vendor status to the System format and include the error code. For example, the status REJECTD with error code 501 can be translated to UNDELIV/EXPIRED/etc., which will allow you not to charge for it, and also configure rerouting for it. If this value is selected, enter *REJECTD:501* in the *Source code* field

NOTE: It is also possible to set a custom status instead of the System status that can be further used in [Carriers\SMS channels](#)^[120] to reroute messages to the next-in-line vendor. To add the new status, contact the Alaris technical support team and communicate the code BZ31523. See also the [Alaris YouTube](#) video.

NOTE: Translation rules with the *Translation type = Routing response code to EDR message status text* are automatically added to the billing presets (a new status appears in *preset 2 Bill by attempt* at [SMS\Reference books\Billing status presets](#)^[286]).

- *Carrier:* carrier to which the translation rule will apply
 - Select *all channels* to apply the translation rule to all carriers
- *Channel list:* specify the selected carrier's channels
- *Source code:* enter or select the code that needs to be translated
- *Resulting code:* enter or select the translation result

NOTE: The codes that must be entered manually are normally supplied by the partner carrier in an interconnection form. They are alphanumeric strings up to 32 symbols long.

Click  to save the changes. The entry will appear in the table.

9.6 Test system

The *SMS\Test system* page serves to test the quality of SMS delivery and change of message parameters (such as message text and sender ID). The *Test system* provides an API for the platforms [TestMySMS](#)^[336], [Remote365](#)^[336], [TelQ](#)^[336], [CSG](#)^[336], [iTest](#)^[336] and [Testelium](#)^[336].

Also there is a possibility to use manual testing which involves sending test messages to a specific vendor with predefined parameters without the routing stage (so there is no need in routing configuration and there are no balance/rate checks).

NOTE: Since a test message is sent directly to the provider, the routing stage is skipped and therefore no translation rule is applied.

NOTE: When the *Manual* testing is used, the vendor POI ID that is being tested is added to the beginning of the message text. The prefix cannot be removed - and actually can be helpful to define which of the providers has delivered the message when bulk message sending is being tested (the same text + destination address).

The Test system page contains three panels:

- *Test destinations*: destinations for testing
- *Task settings*: testing task parameters
- *Test tasks*: test results

9.6.1 Test destinations

The *Test destinations* panel contains the *Test platform* drop-down list that allows selection of the test platform. Currently supported platforms include:

- *TestMySMS*
- *remote365*
- *TelQ*
- *SCG Assure*
- *iTest*
- *Testelium*
- *Manual*

The page also displays the *Test destinations* table with the following columns:

- *Vendor*
- *Product*
- *POI*
- *Country*
- *Net*: network name
- *MCCMNC*: MCC/MNC code
- *Rate, <the System currency>*: the actual rate for the MCC(MNC). Additional filters for the minimum and maximum rate can be set
- *Rate actual at*: the date on which the rate is actual. The default value is the today's next hour (for example, if the interface is open on 2020.02.02 at 13:01, *Rate actual at* will be set as 2020.02.02 14:00).

Note that the product must have an active SMS POI and active rates for the MCCMNC on the *Rate actual at* date in order to reflect the records.

If a test system other than the *Manual* is selected, the rows may be greyed out which means that the network is not available from the test provider. The list of the networks is updated every hour automatically. To update it manually, use the *Refresh* button of the *Task settings* panel.

Additionally, the *Active networks* filter allows the user to find only available networks in the grid.

Start Page		Test system	
Test destinations			
Test platform: TestMySms			
Vendor	Product	POI	
<input type="checkbox"/>	Alice Wondersystems	Alice Wondersystems - Premium (EUR) -	All
<input type="checkbox"/>	Alice Wondersystems	Premium (EUR) - Vendor	Alice_trc329
<input type="checkbox"/>	Alice Wondersystems	Premium (EUR) - Vendor	Alice_trc263
<input type="checkbox"/>	Alice Wondersystems	Premium (EUR) - Vendor	Alice_trc329
<input type="checkbox"/>	Alice Wondersystems	Premium (EUR) - Vendor	Alice_trc263
<input type="checkbox"/>	Alice Wondersystems	Premium (EUR) - Vendor	Alice_trc329
<input type="checkbox"/>	Alice Wondersystems	Premium (EUR) - Vendor	Alice_trc263
<input type="checkbox"/>	Alice Wondersystems	Premium (EUR) - Vendor	Alice_trc329

Test destinations

Use text masks or drop-down lists under the column headers to filter the records in the table. Click  to export the table to MS Excel (active if at least one filter except *Rate* is set).

9.6.2 Task settings

The *Task settings* panel serves to create a new test task. It has the following parameters:

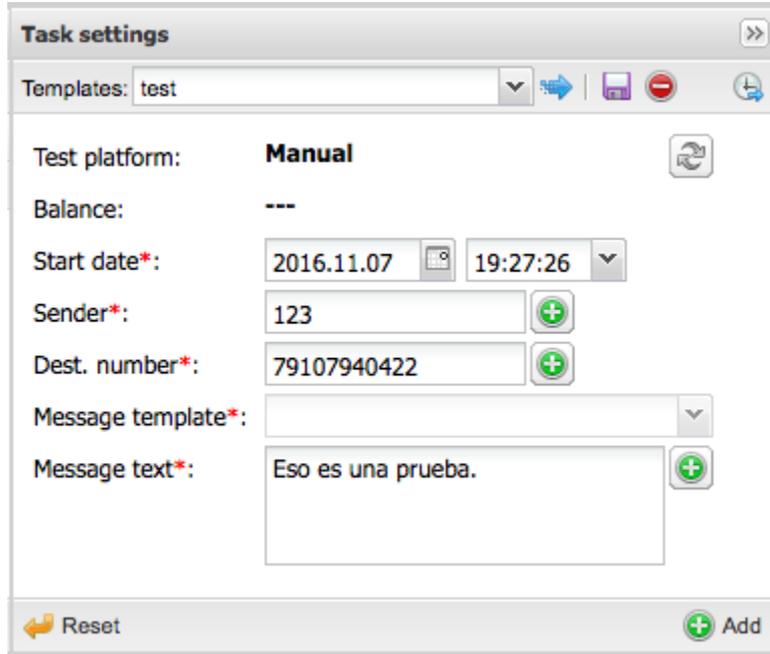
- *Test platform*: the system selected in the *Test destinations* panel
- *Balance*: the account balance of the test platform (only available for TestMySMS)
- *Start date*: the start date and time for the test
- *Sender*: the sender ID. Alphanumeric values are supported - for example, *Google.com*. See also the [Alaris YouTube video](#)^[338]. Several sender IDs per test can be set.
- *Message template*: the message template (configurable in the test platform, not available for the *Manual* testing)
- *Message text*: text of the test message (for the TestMySms service it is configured in the service interface). For test systems the maximum field value is 100 symbols (except for the *Manual* and the *TelQ* platforms for which it is 1000 bytes)

NOTE: If the + sign is specified in the *Dest. number*, it will be removed by the SMS switch.

NOTE: It is possible to generate random numbers (NUM) or text strings (STR) in the *Sender* and *Message text* fields in order to automate the testing process. For this purpose, placeholders are used. For example, {NUM(5)} will generate a number with 5 digits, {STR(10)} - 10 Latin symbols. Learn more about the feature in the [Alaris YouTube video](#).

- *Long message sending*: define how the System should send messages exceeding the standard length. Available for *TelQ* and *Manual* platforms
- *Data coding* (active only if *Manual* is selected in the *Test platform* list in the [SMS\Test system\Test destinations](#)^[337] table): the data coding for the test message. When empty, the System defines the data coding automatically. If the message text contains symbols that persist in GSM7bit, the *data_coding* is set as 0, otherwise - as 8 (UCS2)

- *Silent SMS*: select to test the silent mode of SMS sending (a message is sent with a special data coding, and the message arrives with no sound). Available only for the *Manual* and *TelQ* platforms



Task settings

Templates: test

Test platform: **Manual**

Balance: ---

Start date*: 2016.11.07 19:27:26

Sender*: 123

Dest. number*: 79107940422

Message template*:

Message text*: Eso es una prueba.

Reset Add

Task settings

To save configured settings under a template, insert the template name to the *Templates* field and click the *Save* button. To restore the settings, click on the *Load* button.

9.6.3 Test tasks

The *Test tasks* panel is a table of submitted test tasks.

Test tasks					
<input type="checkbox"/>	Task ID	Test platform	Scheduled to	Vendor	Product
<input type="checkbox"/>		All	$-\infty \leq X \leq \infty$	All	All
<input type="checkbox"/>	10356	Manual	2017.09.21 09:00:05	Brexit Telecom	Wholesale (EUR) - Vendor
<input type="checkbox"/>	10355	Manual	2017.09.20 09:00:05	Brexit Telecom	Wholesale (EUR) - Vendor
<input type="checkbox"/>	10354	Manual	2017.09.19 09:00:05	Brexit Telecom	Wholesale (EUR) - Vendor

Test tasks

It contains the following columns:

- *Task ID*: unique identifier of the task
- *Test platform*
- *Status*: the task status. Possible values include:
 - *scheduled*: task with a future date and time
 - *in progress*: task in progress; the status may be assigned to the task even though the message was successfully sent due to absence of a delivery report
 - *postponed*: indicates impossibility of sending the last test attempt (the number of attempts is configured in the System parameter *SMS test max attempts count* in

[Administration\System settings](#)^[34]). The status may be caused by an unsuccessful response from the test platform or rejection by the SMS switch. For more details, refer to the *System log (Administration)* report (the *Operation* filter must be set to *SMS Test framework*)

- *completed: the task is completed* (the message was sent; it may be delivered correctly or with errors, or not delivered, which is shown in the *Delivery status* and *Status details* columns)
 - *failed: the task was not completed successfully*
 - *canceled: the task was canceled by the user*
- *Scheduled to:* the task launch date
 - *Vendor*
 - *Product*
 - *POI*
 - *Country*
 - *Net*
 - *MCCMNC*
 - *Rate, <the System currency>:* vendor rate as of the testing date and time.

NOTE: Once the test is completed, the value of the *Rate* column remains the same even if the rate itself is later changed retrospectively.

- *Result:* task result. Valid values include:
 - *OK:* the task is completed successfully and no message parameter was changed
 - *FAIL:* one of the message parameter has been changed - for example, there is a difference between the initial sender ID and the one received on the handset
- *Test ref ID:* the message ID; for the *Manual* platform the client message ID is shown; for the *TestMySMS* and *CSG* - the ID of the test assigned from the platform side; for the *Te/Q* platform the format is as follows: the System client message ID/ID of the test assigned from the platform side
- *Send date:* the message send date
- *Delivery status:* SMS delivery status. Valid values include:
 - *OK:* the message is delivered
 - *FAIL:* the message is not delivered
 - *TIMEOUT:* the number of attempts to complete the task has been exceeded; the task details are shown in the *Status details* field

NOTE: The number of attempts is defined by the System parameter *SMS test max attempts count* ([Administration\System settings\SMS test](#)^[60]).

- *Delay:* message delay; returned from the *CSG* and *Te/Q* platform only
- *Sent text:* the text sent by the test system

- *Received text*: the text received by the recipient
- *Text diff*: the difference between the sent and received text; relevant for the *TestMySMS* platform only
- *Sent sender*: the sender ID sent by the test system
- *Received sender*: the sender ID received by the recipient
- *Sender status*: set to *OK* if no different between the *Sent sender* and *Received sender* is detected, otherwise - set to *FAIL*
- *Template name*: the template selected in the *Task settings* panel
- *Target number*: the destination number
- *SMS Center*: the SMS center through with the message was sent; the value is returned from the test platform side (without the + sign)
- *SMS c. country*: the SMS center country for the match of the *SMS Center* and the country from the *e.212/e.164 reference book editor*
- *Status details*: the information on the task status. Possible values include:
 - *Unexpected status failed*: a conflict between the test statuses received from the vendor and the test platform (the vendor sent the delivered status, whereas the platform sent the failed status)
 - *Network currently is not supported by test provider*: the number for the network went offline or the error received due to incorrect authorization data
 - *Required parameters for test provider are not specified*: the platform credentials are not set in the corresponding system settings ([Administration\System settings\SMS Test](#)^[60]). For example, for *TestMySMS* the login must be set in the *TestMySMS user name* and the password - in the *TestMySMS password* parameter
 - *Waiting for delivery*: the message has been sent; no delivery report received yet
 - *Message successfully sent*: the message has been sent, no delivery report received within the *Delivery waiting period, sec period* ([Administration\System settings\SMS switch](#)^[70])
 - *Can't send message*: the test couldn't been sent due to the absence of obligatory parameters (for example, a destination number)
 - *Can't get test results*: the result cannot be obtained from the test platform - for example, a delivery report has not been returned from the test platform side
 - *Task completed, test successful*: the message was delivered with no modifications in the sender's ID or message text
 - *Task completed, test unsuccessful*: the message was delivered with some modifications in the sender's ID or message text
 - *Allowed number of attempts exceeded*: the task was not executed successfully and the allowed number of attempts was exceeded (the number of attempts is configured in [Administration\System settings\SMS Test](#)^[60] (the parameter *SMS test max attempts count*) -

note that the first retry is sent in a minute, the second - in 2 minutes, the 3rd - in 4 minutes, etc (the delay is increased exponentially)

- *Canceled by user*: the task was canceled by the user
- *User name*: the name of the user who launched the task or the template name

9.6.4 Test templates

Click on the *Schedule tasks* button  in the top right corner to go into the *Test templates* interface which is intended for scheduling of test tasks with predefined settings. The interface consists of four panels - *Test templates*, the *Edit* tab, *Test destinations* and *Task settings*.

ID	Name	Enabled	Last run date	Next run date	Target
10010	ac	No		2019.06.28 00:00:00	Manual
10008	new_primary	Yes	2020.05.18 19:25:03	2020.05.19 18:15:00	Manual
10009	new_primary_5	No		2018.05.22 00:00:00	Manual
10007	sa_test	No		2018.04.19 00:00:00	Manual

Test templates

The *Test templates* table contains the following fields:

- *ID*: the unique ID of the template
- *Name*: the template name
- *Enabled*: shows if the schedule is activated
- *Last run date*: the date when the template was executed last time
- *Next run date*: the next date when the task will be executed in accordance with the schedule
- *Target*: the test platform name

 Edit

Name*: new_primary

Minutes: 00 05 10 15 20 25 30 35 40 45 50 55

Hours: 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23

Day of week: ▼

Days: Mo Tu We Th Fr Sa Su

Months: Ja Fe Mr Ap Ma Jn Jl Au Se Oc No De

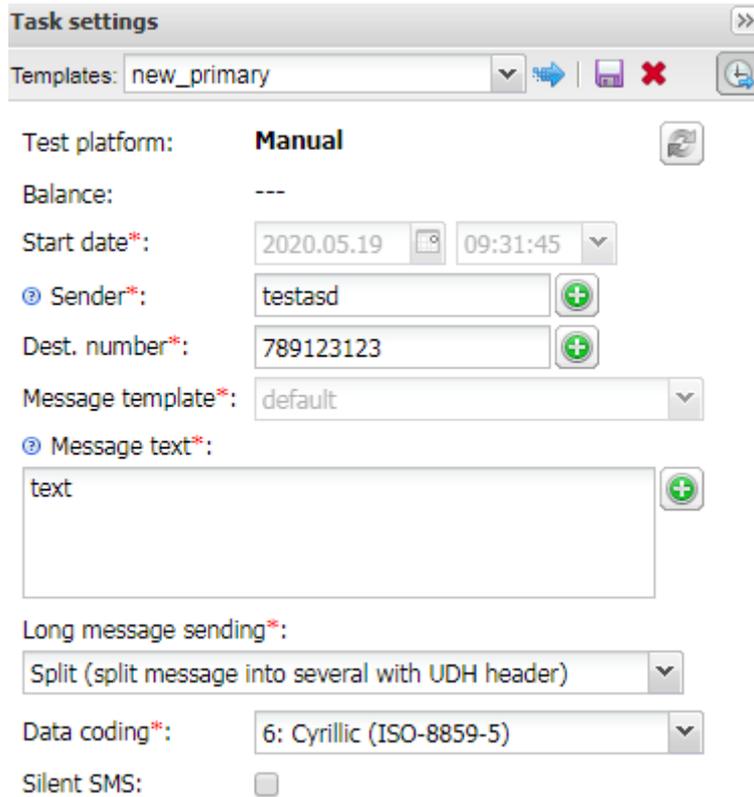
Enabled

Edit template

The schedule can be configured and saved on the *Edit* panel that contains the following fields:

- *Name*: the template name, cannot be changed once saved
- *Days*: can be set as a *Day of week* or a specific *Date*
- *Enabled*: select to enable the schedule

To view the details of a specific template, select it in the *Test templates* table, click  and view the *Tasks settings* panel at the bottom right corner of the page. It is identical to the *Tasks settings* panel of the main *Test system* interface.



The screenshot shows the 'Task settings' panel with the following fields and values:

- Templates:** new_primary
- Test platform:** Manual
- Balance:** ---
- Start date*:** 2020.05.19 09:31:45
- Sender*:** testasd
- Dest. number*:** 789123123
- Message template*:** default
- Message text*:** text
- Long message sending*:** Split (split message into several with UDH header)
- Data coding*:** 6: Cyrillic (ISO-8859-5)
- Silent SMS:**

Task settings

The task settings can be changed and saved either under the same name (new tasks will be launched with the new parameters) or under another one. Tests executed on schedule will have the *User name* set as *Template: <template_name>* in the *Task settings* table. To delete a template, click on the  button of the *Task settings* panel.

The *Test destinations* table is also identical to the *Test destinations* table of the main *Test system* interface.

9.6.5 Auto generation of routing features

Test results can be used for generation of several routing features ([SMS\Routing\Routing features](#)^[29b]).

The default value of the *FalseDLR* feature will be changed to *Yes* if at least one of the selected tests does not have *DELIVRD* status (the *Delivery status* column) if the *Manual* platform was used. The value will be changed to *Yes* if the delivery report received from the vendor and the one returned from the Test system are

different (for example, the vendor returned *DELIVRD* while the Test system returned *UNDELIV*) if any other platform was used.

Additionally, the value of *OrigNotKept* metric can be updated automatically using a test platform other than *Manual*. The metric's default value will be set as *No* if no sender ID was not modified in all tests (*Sender status* column) that are taken into account.

The value of the *TextIntegrity* routing feature can be maintained automatically - the default value of *TextIntegrity* will be set as *No* if test texts were modified (*Text diff* column). This is applicable to the *TestMySMS* platform only.

NOTE: The System job *SMS_AUTO_FEATURES* which is disabled by default must be enabled ([Administration\System jobs](#)^[34]) to update the metrics.

NOTE: The number of tests and period sufficient for automatic generation of routing features are defined by the System parameters *Number of tests to consider for feature generation* and *Period of tests to consider for feature generation* correspondingly. For example, if *Number of tests to consider for feature generation* is 10 and *Period of tests to consider for feature generation* is 1 day, then only the last 10 tests for the past 24 hours will be taken into account. If there are only 5 tests for the period, the result will be based on them.

Finally, these features can be used in routing rules in the *Condition* field (for more detail see [SMS\Routing\Routing features\How to use routing features in routing](#)^[292]).

9.6.6 Manual system

The System has a preconfigured carrier *SMS_TEST_SYSTEM*, its ID is set in the *Route testing client* parameter ([Administration\System settings\SMS test](#)^[60]). This setting should be kept unmodified unless there are changes related to the test carrier.

Test messages are sent from the interface through this carrier as a client and will be seen in the [SMS\Analytics](#)^[213] interface. If test tasks are failed or the traffic is not shown in the *Analytics*, contact the Alaris technical support team.

Once a manual task is created, the request (the template is configured in the *Manual SMS send URL* parameter) is put to queue and sent from the active database to the SMS switch every minute. The *Service type* is set to the vendor POI ID that is being tested. If the message is received from the *Route testing client*, the SMS switch checks the *serviceType* and sends the message directly to the vendor. If the *serviceType* is empty, the message is rejected.

Since it is not possible to check the amount of actually delivered messages with the help of manual tasks, the *Dest. number* can be set as the user's number. The same concept can be applied to check if the provider changes a sender ID and the message text.

NOTE: Currently the values of ToN/NPI cannot be configured and are set as follows: *dstTon/Npi* = 1, *srcTon* = 5 in case the sender ID is alphanumeric, otherwise (digits only) - *srcTon* = 0.

9.6.7 TestMySMS

The *TestMySMS* platform is integrated with the Alaris platform over SMPP. In order to test SMS delivery using the *TestMySMS* service, proceed as follows:

1. Go to [Administration\System settings\SMS Test](#)^[60] and find out the value of the parameter *Route testing client*. This will be the carrier ID automatically created by the System for testing purposes

NOTE: If the value is null, contact the Alaris technical support team to add the *Route testing client*.

2. Go to the [Carriers](#) ^[99] section and use this ID to find the carrier record. Normally the carrier's name is SMS_TEST_SYSTEM
3. Add a client channel under the carrier as described below:
 - a. In the *SMS channels* page, specify the following:
 - *Carrier*: provide a carrier's name
 - *Channel bind type*: select *Auto*
 - *Channel name*: provide an arbitrary name
 - *Host name*: supply the the TestMySMS IP address 209.208.212.224
 - *Login* and *Password*: make up values that will be used by the TestMySMS service to access the Alaris SMS Platform (usually they are provided from the TestMySMS side)
 - Leave the remaining fields blank or fill them with arbitrary values and click *Submit*

 Add
 Edit

General

Carrier: **Anton_SMS_TEST_SYSTEM**

Bind type*: Auto ▼

Stateful concatenated messages processing

Enabled

GUID: **testmysms**

Channel name*: Test-IT

Use optional field for receipt

List of optional fields*:

<input type="checkbox"/>	
<input checked="" type="checkbox"/>	0x001e - Receipted message id
<input checked="" type="checkbox"/>	0x0427 - Message state
<input checked="" type="checkbox"/>	0x1416 - Optional mccmnc
<input checked="" type="checkbox"/>	0x1412 - Optional mcc
<input checked="" type="checkbox"/>	0x1413 - Optional mnc

Log level: 0

Status: **offline**

MPS buffer:

Window buffer:

Repush delivery reports

Connection

Host name*: 209.208.212.224

Login: user_739

Password: jqSfnf4d  Generate

System type:

Add SMS channel tab

- b. Configure an SMS POI for the channel. Go to the *SMS POI* tab, select the carrier, product, active dates and SMS channel. Leave the *Service type* field blank

+ Add
 ✎ Edit

Carrier*: Anton_SMS_TEST_SYSTEM

Product name*: Anton_SMS_TEST_SYSTEM - CLI_child (USD) - Clie

Active from*: 2019.01.25 00:00:00

Active till*: 2100.01.01 00:00:00

SMS channel*: testmysms

Service type:

ANI translation mode: No translation

Buffer size:

Buffer drain speed limit (sms/sec):

Force buffering mode:

Buffer mode schedule:

Mode	
<input type="checkbox"/>	Passthrough mode -
<input checked="" type="checkbox"/>	Buffering mode +

All 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

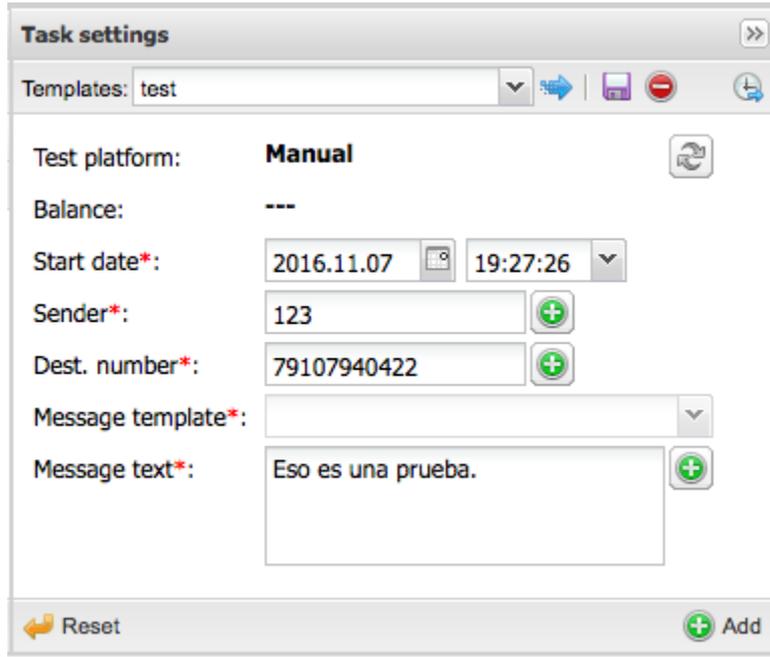
	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Mon							
Tue							
Wed							
Thu							
Fri							
Sat							
Sun							

Note3:

Adding the SMS POI

4. Register an account with the TestMySMS service, create a new vendor and configure the channel connection parameters (use the *SMS channel* values configured above)
5. Go to [Administration\System settings\SMS Test](#)^[60] and configure the following parameters:
 - a. *TestMySMS URL*: provide the platform URL (<http://portal.testmysms.com:8080/SMSClientWeb/TestSendAPI>)
 - b. *TestMySMS password* and *TestMySMS user name*: supply login and password used to access the TestMySMS platform
 - c. *TestMySMS vendor*: enter the name of the vendor as specified in the TestMySMS platform
6. Go to the *Test system* page ([SMS\Test system](#)^[336]) and create a new test task.
 - a. In the *Test destinations* section:

- Select *TestMySMS*
 - Select the appropriate destination
- b. In the *Task settings* section, configure the following:
- *Start date*: specify the start date and time for the test
 - *Sender*: supply the sender's phone number
 - *Message template*: select the message template created in the TestMySMS platform



Task settings

- c. Click *Add*. The task will appear in the *Test tasks* panel

Task ID	Test platform	Status	Scheduled to	Vendor	Product
10049	TestMySms	completed	2016.02.29 07:32:41	Telintel LTD	GOLD (USD) - Vendor
10048	TestMySms	completed	2016.02.29 07:28:37	Telintel LTD	GOLD (USD) - Vendor
10044	TestMySms	completed	2016.02.28 15:15:26	Telintel LTD	GOLD (USD) - Vendor
10043	TestMySms	completed	2016.02.28 15:15:26	Telintel LTD	GOLD (USD) - Vendor
10037	TestMySms	completed	2016.02.27 10:15:13	Telintel LTD	GOLD (USD) - Vendor
10036	TestMySms	canceled	2016.02.27 10:15:13	Telintel LTD	GOLD (USD) - Vendor
10035	TestMySms	canceled	2016.02.27 10:15:13	Telintel LTD	STANDARD (USD) - Vendor
10034	TestMySms	canceled	2016.02.27 10:15:13	Telintel LTD	STANDARD (USD) - Vendor
10023	TestMySms	completed	2016.02.26 10:40:07	Telintel LTD	GOLD (USD) - Vendor
10022	TestMySms	completed	2016.02.26 10:40:07	Telintel LTD	GOLD (USD) - Vendor
10021	TestMySms	canceled	2016.02.26 10:36:34	Telintel LTD	STANDARD (USD) - Vendor
10020	TestMySms	canceled	2016.02.26 10:36:34	Telintel LTD	GOLD (USD) - Vendor
10019	TestMySms	canceled	2016.02.26 10:36:34	Telintel LTD	STANDARD (USD) - Vendor
10018	TestMySms	completed	2016.02.26 10:36:34	Telintel LTD	STANDARD (USD) - Vendor
10017	TestMySms	canceled	2016.02.26 10:36:34	Telintel LTD	DIRECT (USD) - Vendor
10016	TestMySms	completed	2016.02.26 10:36:34	Telintel LTD	GOLD (USD) - Vendor

Test results

The *Balance* field in the *Task settings* panel reflects the balance from the TestMySMS side. The balance is updated every hour. To update it manually, click the  *Refresh* button next to the *Test platform* name.

9.6.8 REMOTE365

To test SMS delivery using the REMOTE365 platform, first contact the Alaris technical support team to install a specialized add-on module and complete the service configuration.

The following system parameters ([Administration\System settings\SMS Test](#)^[60]) must be configured as well:

1. *Remote365 SMS send URL*: set in the format <http://host:8001/api?command=submit&ani=%from%&dnis=%to%&message=%text%&serviceType=%servicetype%&username=%username%&password=%password%>^[349]

where *host* is the server's IP address where the module has been installed; *username* and *password* - the channel's credentials (request the settings from the Alaris technical support team)

2. *Remote365 control URL*: set by the Alaris technical support team
3. *Remote365 password*: the password of the REMOTE365 account
4. *Remote365 user name*: the login of the REMOTE365 account

An account with a positive balance must be created on the REMOTE365 side. The following URL must be specified in the *Configuration\API Connection* field: <http://host:8085/ws/RemoteClient.wsdl>^[349], where *host* must be replaced by the SMS switch IP address.

9.6.9 TelQ

To test SMS delivery using the TelQ platform, proceed as follows:

1. Create an account at the TelQ platform and enable external API requests on the platform side (*API* menu)
2. Go to [Administration\System settings\SMS Test](#)^[60] and configure the following parameters (supplied by the TelQ service):
 - a. *TelQ App ID*
 - b. *TelQ App key*
3. Make sure that the Route testing client is set to the test carrier ID. If specified as null, contact the Alaris support team for further configuration

9.6.10 CSG Assure

To test SMS delivery using the CSG Assure service, proceed as follows:

1. Perform configuration on the CSG side:
 - Obtain the following information from CSG:
 - URL to download the CSG client
 - REST API URL
 - Login and password for the CSG client
 - Login and password for REST API

- Request the CSG support service to activate your REST API
- Download and install the CSG client
- Log into the CSG client and change the password
- In the *Admin\SMS Routes* tab of the CSG client create an *SMS Route* that will enable connection to your SMS switch. Configure the following parameters: *Name*, *Route class* (specify the value *Supplier*), *Carrier name* and *Properties* (specify colon-separated parameters needed for the SMTP connection: *Host*, *Port*, *SystemID* and *Password*). This information will be used by the CSG system to establish a connection to the server where Alaris SMS switch is installed.
- In the CSG client, enable display of the *SMSRoute* ID. Right-click on the title and select *Show/Hide Columns*.

2. Perform configuration of the firewall:

- If you use a hosted variant of the Alaris SMS Platform, contact the Alaris technical support team and send them the REST API URL provided by the CSG engineers
- Otherwise, open the firewall for the CSG IP address that is contained in the REST API URL provided by SCG. For example, if the link looks as follows: <https://h-55-18-125-12.csg-assure.com/clientdownload/>, use the IP address 55.18.125.12

3. Perform configuration of the Alaris SMS Platform:

- Go to [Administration\System settings\SMS Test](#)^[60] and find out the value of the parameter *Route testing client*. This will be the carrier ID automatically created by the System for testing purposes

NOTE: If the value is null, contact the Alaris technical support team to add the *Route testing client*.

- Go to the [Carriers](#)^[99] section and use this ID to find the carrier record. Normally the carrier's name is SMS_TEST_SYSTEM
- Add an SMS channel for this carrier ([Carriers\SMS channels](#)^[120]) with the following parameters:
 - *Partner direction:* Client
 - *Bind type:* TR
 - *Enabled*
 - *Host name:* the IP address contained in the URL provided by CSG (55.18.125.12 in the example below)
 - *Login and Password:* those that you must specify in the *Properties* of the *Admin\SMS Routes* tab of the CSG client
- Add a corresponding client POI for the channel
- Go to [Administration\System settings\SMS Test](#)^[60] and configure the following parameters:
 - *CSG API login*
 - *CSG API password*
 - *CSG SMSRoute ID:* SMSRouteID set in the CSG application. Note that the test system is not available in the drop-down list of test platforms until the parameter is not specified

- CSG URL: URL REST API provider by the CSG team

NOTE: The [Administration\System settings\SMS Test](#) section contains the parameter *CSG test result*. When set to 2, the test result is taken from the CSG platform. When set to 1, the test result is calculated based on the System logic (the test result is *FAIL* if the Sender ID was changed or the *UITestStatusID* field value is other than 100).

 Add
 Edit

General

Carrier: **Anton_SMS_TEST_SYSTEM**

Protocol:

Bind type*:

Send bind to client side

Enabled

GUID: **testmysms**

Channel name*:

Use optional field for receipt

List of optional fields*:

<input type="checkbox"/>	
<input checked="" type="checkbox"/>	0x001e - Received message id
<input checked="" type="checkbox"/>	0x0427 - Message state
<input checked="" type="checkbox"/>	0x1416 - Optional mccmnc
<input checked="" type="checkbox"/>	0x1412 - Optional mcc
<input checked="" type="checkbox"/>	0x1413 - Optional mnc

Log level:

Status: **offline**

MPS buffer:

Window buffer:

Routing stop codes:

Connection

Host name*:

Port:

Login:

Password:

SMS channel settings

9.6.11 Testelium

To test SMS delivery using the Testelium platform, proceed as follows:

1. Create an account at the Testelium platform and add a bind with the Alaris switch IP, Alaris SMPP port (2875 by default), arbitrary system ID and password (they will be used in the SMS

channels of the Alaris web interface later). System type can be left blank provided that the corresponding field will remain blank as well in the Alaris web interface.

2. Make sure that the *Route testing client* is set to the test carrier ID - if specified as *null*, contact the Alaris support team for further configuration. Create a client channel (*Bind type: Auto*) under the *Route testing client* carrier. The channel's login and password must coincide with the ones set on the Testelium side (step 1). The *Hostname* must be set to the Testelium IP address (check it with the Testelium team). A corresponding SMS POI with an empty *Service type* must be created for the channel.
3. Go to [Administration\System settings\SMS Test](#) and configure the following parameters:
 - *Testelium URL*: URL to the Testelium service, normally set to <https://api.testelium.com>
 - *Testelium channel ID*: client channel ID created for the Testelium platform under the *Route testing client* (step 2)
 - *Testelium login*: the login (email address) of the Testelium account
 - *Testelium password*: the password of the Testelium account

NOTE: the valid **Testelium login** and **Testelium password** must be specified so as to fetch a list of the message templates. Once a new message template is added to the Testelium account, use the *Refresh* button of the *Task settings* panel to update the list and show the actual templates.

NOTE: Templates for test tasks must have different values in the *Template name* field so as to avoid uniqueness violation.

9.6.12 iTest

The iTest service is integrated with the Alaris platform over SMPP. To test SMS delivery using the platform, proceed as follows:

1. Create an account at the iTest platform and add *SMS(SMPP) Profiles* in the *Profile* section. Configure the *Profile Name* and *SMPP* parameters for connection to the Alaris switch and *System type* (set to *SMPP*). Later, after completing configuration on the Alaris side, you can check the connection status in this window (with the help of the *Check Status* button)
2. Add *SMS Supplier* to the *Supplier* section on the iTest side. In the *Supplier name* specify the name of the vendor that is being tested, in the *Service Type* field add *sms*, in the *Route Argument* field specify the platform name or your own name in lowercase. In the *Email* field specify the vendor email (adding the email will simplify exchange of test results with your vendor)
3. Create an SMS channel for the client direction and the relevant client POI with the blank *Service type* for iTest service in the Alaris main interface (the entities must be configured either under the *Route testing client*) with the *Hostname*: 5.153.23.46 (iTest IP address); the *Login* and *Password* - corresponding credentials set in the iTest's *SMPP User* and *SMPP Pass* parameters
4. Go to [Administration\System settings\SMS Test](#) and configure the following parameters:
 - *Prefix-based route testing channel ID* - channel ID created for the iTest service
 - *iTest URL API* - URL API of iTest, normally set to <https://api.i-test.net/>
 - *iTest login* - iTest login
 - *iTest password* - iTest password

- *iTest profile name* - profile name from the respective iTest setting

Once the above configurations are made, the platform will be available for message testing. If you encounter any difficulties, contact the Alaris technical support team.

9.7 Volume-based deals

The *SMS\Volume-based deals* page enables creation of flexible rating schemes for destinations based on the total volume of processed traffic within a pre-defined period.

A typical volume-based deal requires one or several thresholds of the traffic amount. Bypassing the threshold decreases the price per message, to make it lower than the average market price. If the lowest of the thresholds is not reached before the deal's expiration, the default price (higher than average) is applied. In this way, failure to perform traffic delivery obligations makes the deal unprofitable for the partner carrier.

It is also possible that a carrier agrees to pay a fixed sum for the possibility to send some amount of traffic to a partner's destination within a pre-defined period. The sum is not subject to change, even if the source carrier did not send the full allowed amount of traffic before the agreement expiration.

Another popular scenario is a two-way deal, where two carriers exchange pre-defined amounts of traffic to different destinations (for example, one million SMS to Russia mobile in exchange to 300,000 SMS to Myanmar mobile). Pre-defined prices for both destinations are used for rating if the obligation on the traffic delivery is fulfilled. If one of the carriers did not fulfill the obligation, then its traffic is priced with a penalty. In fact, this scenario comprises two interlinked volume-based deals.

The *SMS\Volume-based deals* page is divided into two panels. The left panel is a table of registered volume-based deals. Use text masks or drop-down lists under the column headers to filter the records in the table. To clear the filter, click the *Clear filter*  button in the upper left corner of the table.

ID	Description	Start date	End date	Carrier
<input type="text"/>				
10000	PocoDeal	2016.12.01 00:00:00	2017.01.01 00:00:00	PocoDinero Enterprises
10004	MegaDeal	2017.10.11 00:00:00	2017.10.31 00:00:00	Empresa Quebrada Pte.

Volume-based deals

The *Add* and *Edit* tabs that serve to add new deals or edit existing ones. To activate the *Edit* tab, click on the record in the table. Enter the above listed parameters in the corresponding fields. Fields marked with an asterisk (*) are required.

Add
 Edit

Description*: MegaDeal

Start date*: 2017.10.11

End date*: 2017.10.31

Carrier: Empresa Quebrada Pte.

Direction: Client

Product*: Empresa Quebrada Pte. - LCR (EUR) - Client

Destination list*:

MCCMNC	Sender ID	Country	Network name	
202		Greece	All networks	✘
202		Greece	All networks	✘

Deal type*: Scale

Time zone*: GB (GMT+1)

Expected volume:

Volume intervals*:

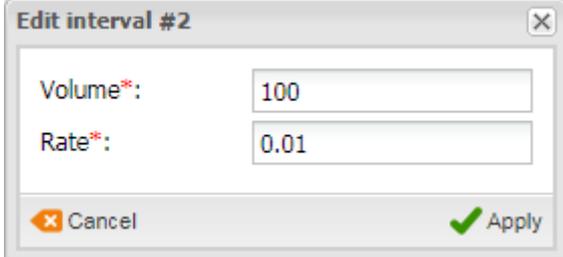
Volume	Rate
	0.10000
10 000	0.08000
50 000	0.70000
	-
	-
	-

Add/Edit tabs

- *Description*: arbitrary description of the deal
- *Start date / End date*: activity period of the deal
- *Carrier*
- *Direction*: Client or Vendor
- *Product*: partner carrier's product
- *Destination list*: in the appropriate edit boxes, specify the *MCCMNC* and, if necessary, *Sender ID*. The country and network name will be displayed automatically
- *Deal type*:
 - *Back to first*: when a threshold is bypassed, a new price is applied to all traffic, starting from the very first SMS
 - *Scale*: when a threshold is bypassed, the price per SMS changes only for the exceeding traffic
- *Time zone*: the deal time zone

- *Expected volume*: use this field if you need the System to create a rate based on the volume specified in the field. This may come instrumental when creating a backdate deal - when some traffic for the deal has already been handled
- *Volume intervals*: click on the appropriate row and specify the volume and rate for each interval. Up to 6 intervals can be set.

To set an interval, click on the appropriate row in the *Volume intervals* table, specify the appropriate values in the *Volume* and *Rate* fields and click  **Apply**.



Add interval

NOTE: The value 0 is allowed as the rate in the first volume interval. In this case negative margin must be allowed in routing rules.

When through with defining the parameters, click  **Submit** to confirm or  **Reset** to discard the settings.

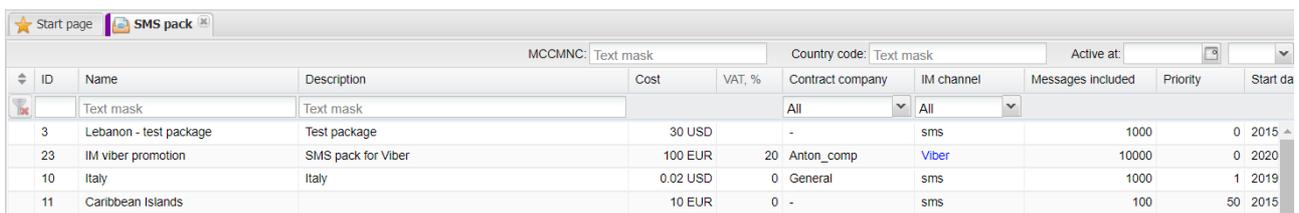
10 Campaign Portal

The *Campaign Portal* section serves to create and manage SMS packages that can be purchased and used in the [Alaris Campaign Portal](#)^[380]. The section contains two pages: [SMS pack](#)^[358] and [SMS pack user subscription](#)^[358].

10.1 SMS pack

The *Campaign Portal\SMS pack* page serves to create and edit SMS packages for the [Alaris Campaign Portal](#)^[380]. An SMS package is a set of SMS messages for a specific destination provided at a flat rate, for example, 100 SMS messages to Russia for 10 USD.

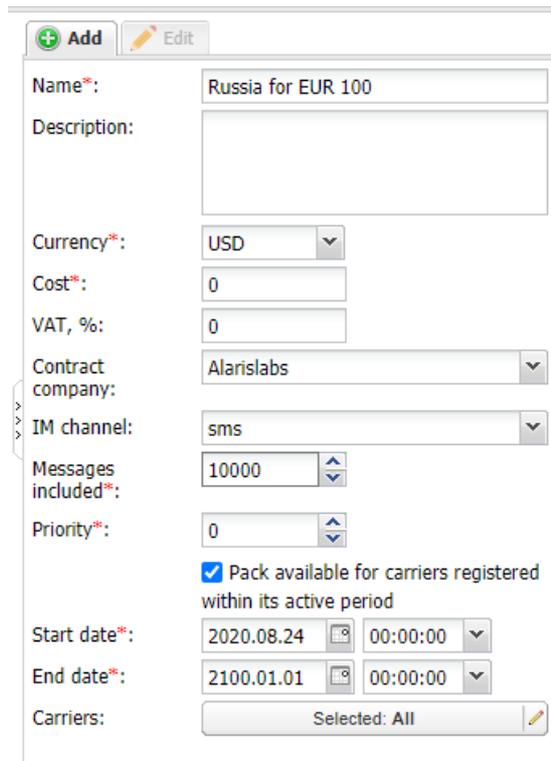
The page consists of four panels: the table of SMS packs and pack *Add/Edit* tabs at the top, and the table of MCCMNC/country codes and their *Add/Edit* tabs at the bottom.



ID	Name	Description	Cost	VAT, %	Contract company	IM channel	Messages included	Priority	Start da
3	Lebanon - test package	Test package	30 USD	-	-	sms	1000	0	2015
23	IM viber promotion	SMS pack for Viber	100 EUR	20	Anton_comp	Viber	10000	0	2020
10	Italy	Italy	0.02 USD	0	General	sms	1000	1	2019
11	Caribbean Islands		10 EUR	0	-	sms	100	50	2015

Table of SMS packs

The *Add* tab contains the following parameters:



Add Edit

Name*: Russia for EUR 100

Description:

Currency*: USD

Cost*: 0

VAT, %: 0

Contract company: Alarislabs

IM channel: sms

Messages included*: 10000

Priority*: 0

Pack available for carriers registered within its active period

Start date*: 2020.08.24 00:00:00

End date*: 2100.01.01 00:00:00

Carriers: Selected: All

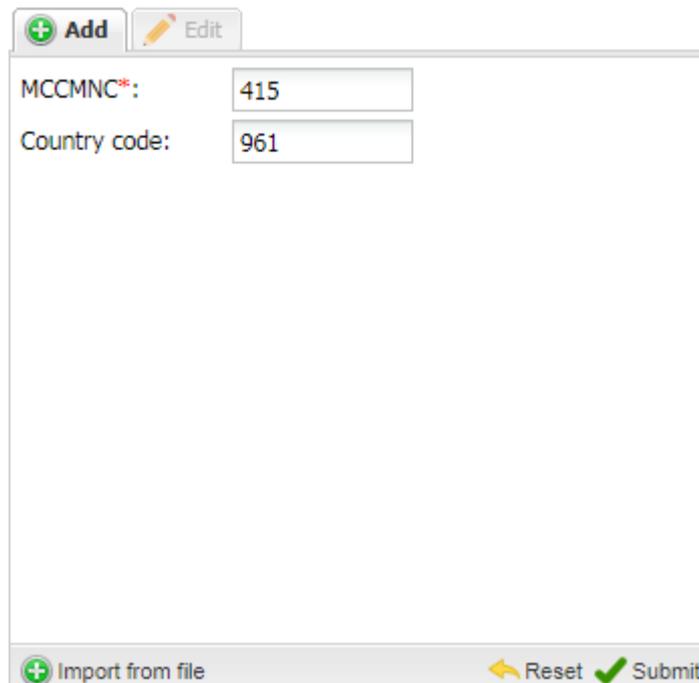
Add new pack tab

- Name: package name
- Description
- Currency

- *Cost*: the package price
- *VAT, %*: the tax amount that is added to the total price of the pack. Check out this feature in the [Alaris YouTube video](#)
- *Contract company*
- *IM channel*: the message channel for which the pack is intended
- *Messages included*: the amount of SMS in the package
- *Priority*: defines which package will be used first if several packages for a specific country/network are available
- *Pack available for carriers registered within its active period*: serves to control the pack availability. If the checkbox is enabled, the pack will be available only to partners that were automatically created or registered within the pack validity period. The option is taken into account when subscribing to the pack in the Alaris Campaign Portal or when assigning the pack in the main web interface, and also when calling the REST method GET:sms_pack
- *Start date, End date*: the package validity period
- *Carriers*: displays all carriers present in the System, both having and not having SMS products. Find out more in the [Alaris YouTube video](#)

Click  **Submit** to save the changes. The entry will appear in the table of SMS packs. The *Edit* tab also contains the read-only *Subscribers* field that shows the number of users that are subscribed to the pack.

Once the SMS pack is created, define the MCCMNC and country code using the *Add* tab located in the bottom right corner of the page. Select the record in the table of SMS packs and complete the *MCCMNC* and *Country code* fields as illustrated below.



The screenshot shows a web interface for adding an SMS pack. At the top, there are two buttons: a green '+ Add' button and a pencil 'Edit' button. Below these are two input fields. The first is labeled 'MCCMNC*:' and contains the text '415'. The second is labeled 'Country code:' and contains the text '961'. At the bottom of the form area, there are three buttons: a green '+ Import from file' button, a yellow 'Reset' button, and a green 'Submit' button with a checkmark icon.

Add MCCMNC and country code tab

Click  **Import from file** to import a list of MCCMNC and country codes from a CSV file.

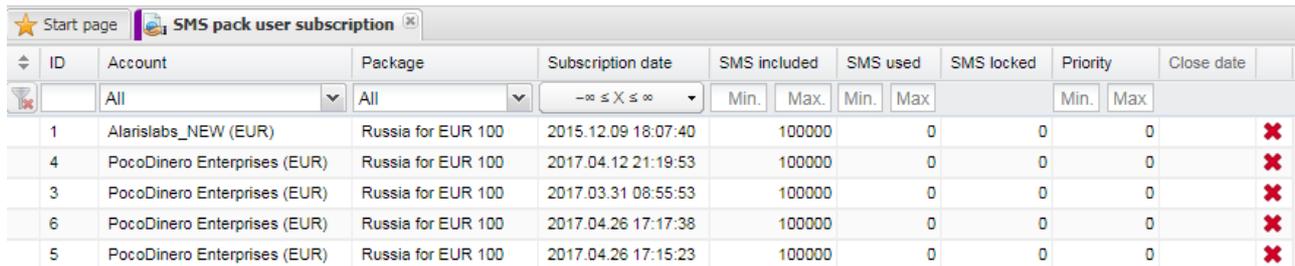
Click  to save the changes. The entry will appear in the table of MCCMNC and country codes.

ID	MCCMNC	Country code
2	415	961

Table of MCCMNC and country codes

10.2 SMS pack user subscription

The *Campaign Portal\SMS pack user subscription* page serves to view user subscriptions to SMS packages and their usage, and terminate subscriptions.



ID	Account	Package	Subscription date	SMS included		SMS used		SMS locked	Priority		Close date
				Min.	Max.	Min.	Max.		Min.	Max.	
1	Alarislabs_NEW (EUR)	Russia for EUR 100	2015.12.09 18:07:40	100000		0	0	0	0		
4	PocoDinero Enterprises (EUR)	Russia for EUR 100	2017.04.12 21:19:53	100000		0	0	0	0		
3	PocoDinero Enterprises (EUR)	Russia for EUR 100	2017.03.31 08:55:53	100000		0	0	0	0		
6	PocoDinero Enterprises (EUR)	Russia for EUR 100	2017.04.26 17:17:38	100000		0	0	0	0		
5	PocoDinero Enterprises (EUR)	Russia for EUR 100	2017.04.26 17:15:23	100000		0	0	0	0		

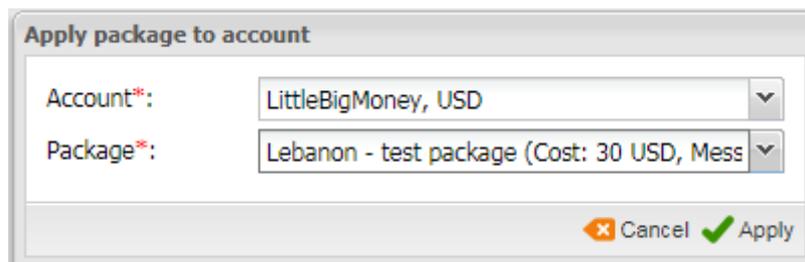
SMS pack user subscription

The table contains the following columns:

- *ID*
- *Account*
- *Package*
- *Subscription date*
- *SMS included*: number of SMS in the package
- *SMS used*: number of sent SMS
- *SMS locked*: the number of SMS that have been sent by the user but that do not have the *Sent* status yet. They are locked so that the user does not exceed the allowed SMS limit.
- *Priority*: the package priority
- *Close date*

Click  to terminate the subscription.

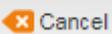
To apply a package to a specific account, click .



Apply package to account

Account*:

Package*:

Apply package to account



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Campaign Portal

Select the account and SMS package and click  **Apply**.

11 Swap deals

The *Swap deals* page serves to monitor traffic exchange deals between the System owner and its partners.

The page consists of three sections: the top section is a list of partners, the middle section displays partner destinations, and the bottom section shows the traffic buy and sell rates.

NOTE: Negative values and values below planned targets are highlighted in red.

ID	Carrier	Manager	Planned balance, USD	Planned margin, U...	Actual balance, ...
3	ALARIS TEST	-	1 000	15 600	379.23
4	Beer Construction	wong eric (eric)	200 000	-28 100	2 576.27
5	AC_Vendor	abison abison (abison)	0	0	0.00
2	CallingElvis	-	108 000	134 000	0.00

Table of partners (top section)

The top section is a table of partners that contains the following columns:

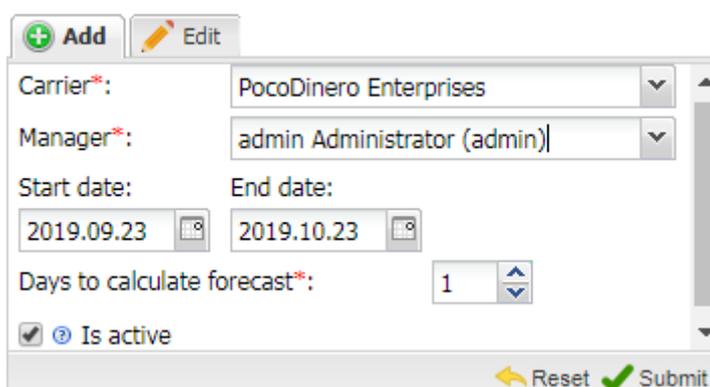
- *ID*: record identification number
- *Carrier*
- *Manager*: System user assigned to manage the swap deal
- *Planned balance, USD*: the balance planned by the System owner

NOTE: The account currency is set in the System parameter *Swap deals stats currency* ([Administration\System settings\Trading tools](#)^[74]). To change it, contact the Alaris technical support team.

- *Planned margin, USD*: the margin planned by the System owner
- *Actual balance, USD* (taken from [SMS\Analytics](#)^[213])
- *Actual margin, USD* (taken from [SMS\Analytics](#)^[213])
- *Forecast balance, USD*: estimated balance by the end of the swap deal
- *Forecast margin, USD*: estimated margin by the end of the swap deal
- *Progress*: swap deal completion indicator
- *Days passed*
- *Days left*
- *Start date – End date*: swap deal period
- *Is active*: when the value is Yes, the swap deal statistics is updated automatically every 24 hours; otherwise click  **Refresh statistics**. To change the column value, use the *Is active* checkbox in the *Edit* tab

NOTE: Statistics for closed deals can also be updated. Partner destination groups that do not have statistics are marked with the icon  (find out more in the [Alaris YouTube video](#)).

Click  to create a copy of the deal (find out more in the [Alaris YouTube video](#))



Add tab (table of partners, top section)

The top right section contains the *Add* and *Edit* tabs that serve to add and edit swap deals. The *Add* tab contains the following parameters:

- *Carrier*: name of the partner carrier
- *Manager*: System user assigned to manage the swap deal
- *Start date/End date*: swap deal period
- *Days to calculate forecast*: serves to set the number of days required to calculate the forecast. If the number of days exceeds the actual active days of the deal, then the actual days are used for the calculation
- *Is active*: select the checkbox to activate the deal. Statistics for an active deal is updated every 24 hours

Click  to confirm or  to discard the settings.

Type	Destinations/MCCMNC	Direction	Plan				Actual as of now					
			Volume	Daily vol.	Charge, EUR	Margin, EUR	Volume	Charge, EUR	Margin, EUR	Aver. sell rate, EUR	Aver. buy rate, EUR	Volume, %
	Total		12 111	433	0	4 541	55 511	-487.67	3 133.41			
	Russia	Buy	11 111	397	0	148	55 511	-487.67	3 133.41	0.06488	0.00879	499.60
	Russia, proper	Buy					55 511	-487.67	3 133.41	0.06488	0.00879	499.60
	r1	Buy	1 000	36	0	4 393	0	0.00	0.00	0.00000	0.00000	0.00
	R'ussia, proper	Buy					0	0.00	0.00	0.00000	0.00000	0.00

Destinations for a selected partner (middle section)

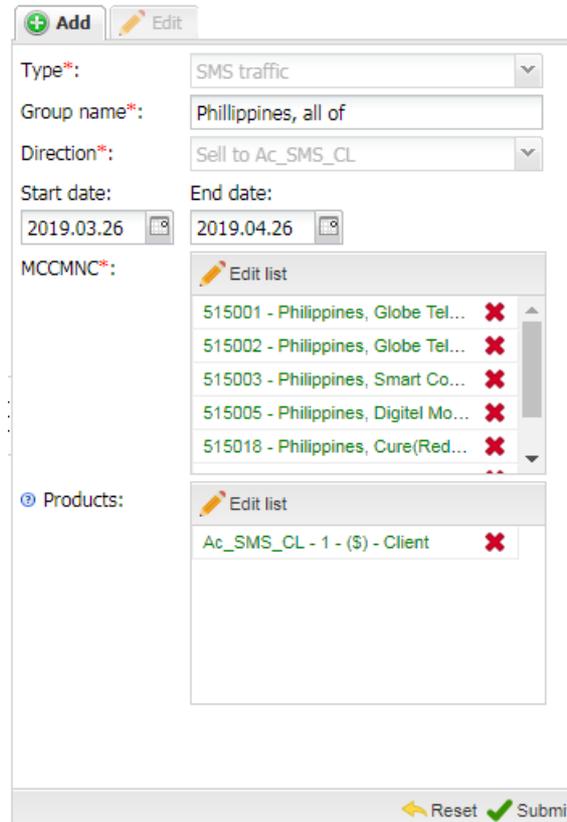
The middle section shows the destinations for a partner selected in the top table. It contains the following columns:

- *Type*: traffic type -  for SMS.
- *MCCMNC*
- *Direction*: Sell or Buy (click on the column header to sort records by direction)
- *Plan*: section that displays the following target parameters:
 - *Volume*: the target volume (configured in the bottom right section)

- *Daily vol.:* the estimated average volume for each day of the deal. See also the [Alaris YouTube](#) video
- *Charge, USD:* the total cost of traffic
- *Margin, USD:* the planned margin
- *Actual as of now:* section that shows the current state of the swap deal and contains the following parameters:
 - *Volume:* the actual volume of exchanged traffic
 - *Charge, USD:* the current cost of traffic
 - *Margin, USD:* the actual margin
 - *Aver. sell rate, USD*
 - *Aver. buy rate, USD*
 - *Volume, %:* share of exchanged traffic as compared to the target volume
 - *Left vol.:* the remaining volume
 - *Daily vol.:* the average daily volume
- *Forecast by the end of the swap deal:* section that shows the projections for the *End date* of the deal:
 - *Volume:* the traffic volume that will be left by the *End date*
 - *Charge, USD*
 - *Margin, USD*

NOTE: The forecast values are calculated based on the data of the previous day. Suppose the deal lasts 30 days, and today is day 16. The total traffic volume for 16 days is 50,000 SMS; the volume for the previous day is 5,000. The *Volume* parameter will be calculated as $50,000 + 5 \cdot 15$.

The *Total* row contains the aggregate swap deal statistics for the partner (the same figures are shown in the top table).



Add new destinations for partner (middle section)

The middle right section contains the *Add* and *Edit* tabs that serve to add and edit destinations. The *Add* tab contains the following parameters:

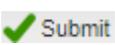
- *Type*: Voice or SMS

NOTE: If the carrier only has products of one type (Voice or SMS), the *Type* field will be filled in automatically and will be uneditable.

- *Group name*: name of the group of destinations (for example, a group can include all destinations for a country). A group can also contain a single destination
- *Direction*: Sell to System user (for client products); Buy from System user (for vendor products)

NOTE: If the carrier only has products of one direction (client / vendor), the *Direction* field will be filled in automatically and will be uneditable.

- *Start/End date*: the period of the deal
- *MCCMNC*
- *Products*: products whose traffic will be used for stats calculation. If empty, the statistics will be calculated for all products

Click  to confirm or  to discard the settings.

Sell Bulgaria, proper to CallingElvis								
Start date	Currency	Rate to U...	Rate type	Up to #1	Rate #1	Cost #1	Up to #2	Rate #2
2016.03.01	USD	1.00000	Back to first minute	100 000	0.46000		200 000	0.40000

Table of rates (bottom section)

The bottom section serves to configure rates for buying and selling the destination groups selected in the middle table. The bottom left table has the following parameters:

- *Start date*: start date of the swap deal
- *Currency*
- *Rate to USD*: exchange rate of the selected currency to the US Dollar
- *Rate type*: contains the following values:
 - *Scale*: the rate changes after a preconfigured threshold is reached. The threshold is configured by the parameters *Up to #1* – *Up to #5*. Example: suppose the first threshold is 300,000 SMS (set by the parameter *Up to #1*), at the rate (*Rate#1*) of 0.03 USD. *Rate #2* is 0.02 USD. The first 300,000 SMS will be charged at 0.03 USD. The 300,001 SMS will be charged at *Rate #2* (0.02 USD), same as all further SMS up to the next threshold (set by the parameter *Up to#2*)
 - *Back to first minute*: the rate changes after a preconfigured threshold is reached, and all traffic starting from the first minute is recalculated at the new rate. Example: suppose the first threshold is 300,000 SMS (set by the parameter *Up to #1*), at the rate (*Rate#1*) of 0.03 USD. *Rate #2* is 0.02 USD. The first 300,000 SMS will be charged at 0.03 USD. The 300,001 SMS will be charged at *Rate #2* (0.02 USD), and all the previous 300,000 SMS will be recharged at *Rate #2* (0.02 USD), same as all subsequent SMS up to the next threshold (set by the parameter *Up to#2*). When the second threshold is reached, the subsequent SMS are charged at *Rate #3*, and all previous traffic is recharged at *Rate #3* as well, and so on up to the fifth threshold and *Rate #5*
- *Up to #1* – *Up to #5*: traffic thresholds that trigger rate changes (set by the parameters *Rate #1* – *Rate #5*)
- *Rate #1* – *Rate #5*: rate values for 5 traffic thresholds (configured by the parameters *Up to #1* – *Up to #5*)
- *Cost #1* – *Cost #5*: the cost of the entire traffic within a single threshold

NOTE: To configure the traffic price, use either *Rate #...* or *Cost #...* (do not use both parameters at the same time). Normally a swap deal involves multiple carriers with different rates, therefore the rates and cost of traffic configured in this page are not actual figures but rather an estimate needed to calculate the expected sell and buy rates.

Values that have been edited and not saved have a red tag in the top left corner, for example 500 000.

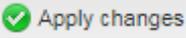
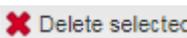
Click ✔ Apply changes to save the changes; click ✘ Delete selected to delete the record. Click ➕ Add new to add a new destination.

Buy Bulgaria, proper for CallingElvis				
Start date	Currency	Rate to USD	Volume	Rate
2016.03.01	USD	1.00000	200 000	0.10000

Rates for source traffic (bottom section)

The bottom right table serves to configure the rates for traffic that the System user will buy from/sell to other partners for further exchange with the swap partner. The table contains the following parameters:

- *Comment field:* click  to add a comment. Fields with comments are marked with the blue icon . Point the mouse to the icon to view the comment as a pop-up tip. Click it to edit the comment
- *Start date*
- *Currency*
- *Rate to USD:* exchange rate of the selected currency to the US Dollar
- *Volume*
- *Rate*

Click  to save the changes; click  to delete the record. Click  to add a new destination.

12 DID management

The *DID management* page allows the user to work with DID and TFN numbers:

- Create, edit and modify DID and TFN numbers
- Import new DID numbers into the System
- Assign/deassign numbers from partners
- Charge NRC (non-recurring fee) and/or MRC (monthly recurring fee) for each number
- Provision numbers to the routing module to ensure static routing

The “Direct inward dialing (DID)” is a telecommunication service offered by telephone companies to subscribers that operate a private branch exchange (PBX) system. A TFN number (a toll-free telephone number or freephone number) is a telephone number that is billed for all arriving SMS instead of incurring charges to the originating telephone subscriber.

The page contains four tabs: [Numbers](#)^[368], [Billing scheme](#)^[368], [History](#)^[369] and [Import](#)^[369].

12.1 Numbers

Numbers								
Number	Type	Status	Batch	Product	POIs	Billing scheme	Added	
<input type="checkbox"/>	11111111111111	DID	Assigned	test_batch_bulk...	AM_DID - TFN (USD) - Vendor	AM_DID - TFN ... AM_DID - TFN ...	NRC 5, MRC 10	2018.03.23 10:58:
<input type="checkbox"/>	11112221234	TFN	Assigned	test_batch_bulk...	AM_DID - TFN (USD) - Vendor	AM_DID - TFN ...	NRC 0, MRC 5	2018.02.07 09:32:
<input type="checkbox"/>	11112221235	DID	Assigned	test_batch_bulk...	AM_DID - TFN (USD) - Vendor	AM_DID - TFN ...	NRC 0, MRC 5	2018.02.18 11:33:
<input type="checkbox"/>	11112221236	DID	Assigned	rrr	AM_DID - DID (USD) - Vendor	AM_DID - DID (...)	NRC 5, MRC 10	2018.02.18 11:33:
<input type="checkbox"/>	155566612346	TFN	Assigned	test_batch_bulk...	AM_DID - DID (USD) - Vendor	AM_DID - DID (...)	NRC 0, MRC 5	2018.03.22 07:06:
<input type="checkbox"/>	155566612347	DID	Assigned	test_batch_bulk...	AM_DID - DID (USD) - Vendor	AM_DID - DID (...)	NRC 5, MRC 10	2018.03.22 07:08:
<input type="checkbox"/>	1800003	TFN	Assigned	test_batch_bulk...	AM_DID - DID (USD) - Vendor	AM_DID - DID (...)	NRC 5, MRC 10	2018.02.18 11:33:
<input type="checkbox"/>	1800005	TFN	Assigned	test_batch_bulk...	AM_DID - DID (USD) - Vendor	AM_DID - DID (...)	NRC 5, MRC 10	2018.02.18 11:33:
<input type="checkbox"/>	190090012345	DID	Assigned	2018-03-27 | 06...	AM_DID - DID (USD) - Vendor	All	NRC 5, MRC 10	2018.03.27 06:02:
<input type="checkbox"/>	5000	DID	Assigned	2018-03-29 | 19...	AM_DID - DID (USD) - Vendor	All	NRC 5, MRC 10	2018.03.29 19:55:
<input type="checkbox"/>	5001	TFN	Assigned	2018-03-29 | 19...	AM_DID - TFN (USD) - Vendor	All	NRC 5, MRC 10	2018.03.29 19:56:
<input type="checkbox"/>	5002	DID	Assigned	2018-03-29 | 19...	AM_DID - DID (USD) - Vendor	All	NRC 0, MRC 5	2018.03.29 19:56:
<input type="checkbox"/>	99999998	TFN	Assigned	2018-03-28 | 19...	AM_DID - TFN (USD) - Vendor	All	NRC 5, MRC 10	2018.03.28 19:17:
<input type="checkbox"/>	99999999	DID	Assigned	2018-03-28 | 19...	AM_DID - DID (USD) - Vendor	All	NRC 5, MRC 10	2018.03.28 19:16:

Numbers

The *Numbers* tab sheet contains a table of numbers and the *Editor* panel. The table consists of the following columns:

- Checkbox that allows selecting multiple records
- *Number*
- *Type* (DID/TFN)
- *Number status*. The following statuses are possible:
 - *Available*: the number is not assigned to a specific partner and can be used further
 - *Assigned*: the number belongs to a partner and was charged by the Non-recurring charge (NRC) or Monthly recurring charge (MRC) method

- *Aging*: the number has been revoked from a partner. By default the number has the *Aging* status for 30 days and is then automatically changed to *Available*. The user with the permission *DID management\Override DID statuses* can change the status manually at any time (permissions are configured in the *Roles* section of [Administration\Users](#)^[97]). By default such numbers are hidden and are displayed only when the checkbox *Show aging* is selected
- *Archived*: the status can only be set manually and means that the number is not active anymore and not in use. By default such numbers are hidden and are displayed only when the checkbox *Show archived* is selected

NOTE: In terms of routing, if the DID/TFN number has the status *Available*, *Aging* or *Archived* the SMS will be rejected.

- *Batch*: name of the group that includes one or several numbers. The batch name can be assigned in the *Editor* panel or on the [DID management\Import](#)^[365] tab sheet. If the batch name is not set in the *Editor* panel, the System will automatically assign it using the format specified in the parameter *Batch format* in [Administration\System settings\DID inventory](#)^[42]
- *Product, POIs*: the vendor product and POI to which the SMS must be passed. If the *POIs* field is empty then all POIs will be used
- *Billing scheme*: the scheme that can be configured on the [DID management\Billing scheme](#)^[368] tab sheet.

NOTE: Once a scheme is assigned to a number, it cannot be changed later.

- *Added*: date and time when the number was created
- *Assigned*: date and time when the number was assigned to a carrier
- *History*: link to the [DID management\History](#)^[369] tab sheet

Editor

⊕ **Action***:

Number*:

Type*:

Batch:

Product*:

POIs:

✎ Edit list

Billing scheme*:

Editor

The *Editor* panel contains the following parameters:

- *Action*: serves to perform the following operations:
 - *Add*: add a new number
 - *Edit*: edit the selected number(s)

NOTE: Multiple records can be modified only if they have the same value in the *Status* column.

- *Assign*: assign the number to a partner product
 - *Deassign*: revoke the number from a partner. The status will be changed to *Aging* and the record will disappear from the table (to view the record, select the *show aging* checkbox)
 - *Archive*: deactivate the number (can be applied to numbers whose *Status* is *Available*). The status will be changed to *Archived* and the record will disappear from the table (to view the record, select the *show archived* checkbox)
 - *Dearchive*: reactivate the number (applicable to numbers whose *Status* is *Archived*). The status will be changed to *Available*
 - *Close*: remove the number from the database (applicable to numbers whose *Status* is *Archived*). The System checks if this number has ever been assigned to any product. If the number has never been assigned to a product, all mentions of the number are removed from the System. A closed number disappears from the table and cannot be restored
- *Selection type*: *inclusive or exclusive* (available for all *Action* values except *Add*)
 - *Number*: the telephone number. Multiple numbers can be added (when the *Action* value is *Add*). Numbers can be separated by the following symbols: ',', ';', '|' or ' '. The maximum field length is 4,000 symbols
 - *Type*: the parameter defines the type of pricing. Possible values are *DID* (direct inward dialing) and *TFN* (toll-free number). TFN induces reverse charging and uses the A-number to find the dial code: the vendor is charged and pays for the SMS to the client. DID billing is the same as usual – the prefix is defined by the B-number; the client is charged for the SMS and pays for it to the vendor
 - *Batch*: name of the group of numbers
 - *Product*
 - *POIs*
 - *Billing scheme*: available options are configured in the [DID management\Billing scheme](#)^[368] tab sheet

NOTE: Routing of DID numbers is effected as follows. In case the routing module detects that a message is coming to a pool of DID numbers, the route search logic is simplified: the route list will contain only those POIs that are present in the POIs field above (or all POIs if the list is empty). Margin check is arbitrary and can be enabled by means of the parameter *List of products to check margin in the routing* available in the [Administration\System settings\DID inventory](#)^[42].

12.2 Billing scheme

The *Billing scheme* tab sheet serves to configure billing schemes to charge partners for using DID and TFN numbers.

The page contains a table of configured schemes and the *Add/Edit* tab.

Numbers		Billing scheme	History	Import
ID	Name	Currency	NRC	MRC
	Text mask		Min.	Max.
1	NRC 5, MRC 10	USD	5	10
2	NRC 0, MRC 5	USD	0	5

Billing scheme

Add
 Edit

Name*:

Currency:

NRC:

MRC:

Add/Edit tab

The *Add/Edit* tab contains the following fields:

- *Name*: name of the billing scheme
- *Currency*
- *NRC*: amount of the non-recurring charge (one-time payment for the number)
- *MRC*: amount of the monthly recurring charge (monthly fee)

Click **Submit** to save the changes.

12.3 History

The *History* tab sheet serves to view a history of operations performed on numbers.

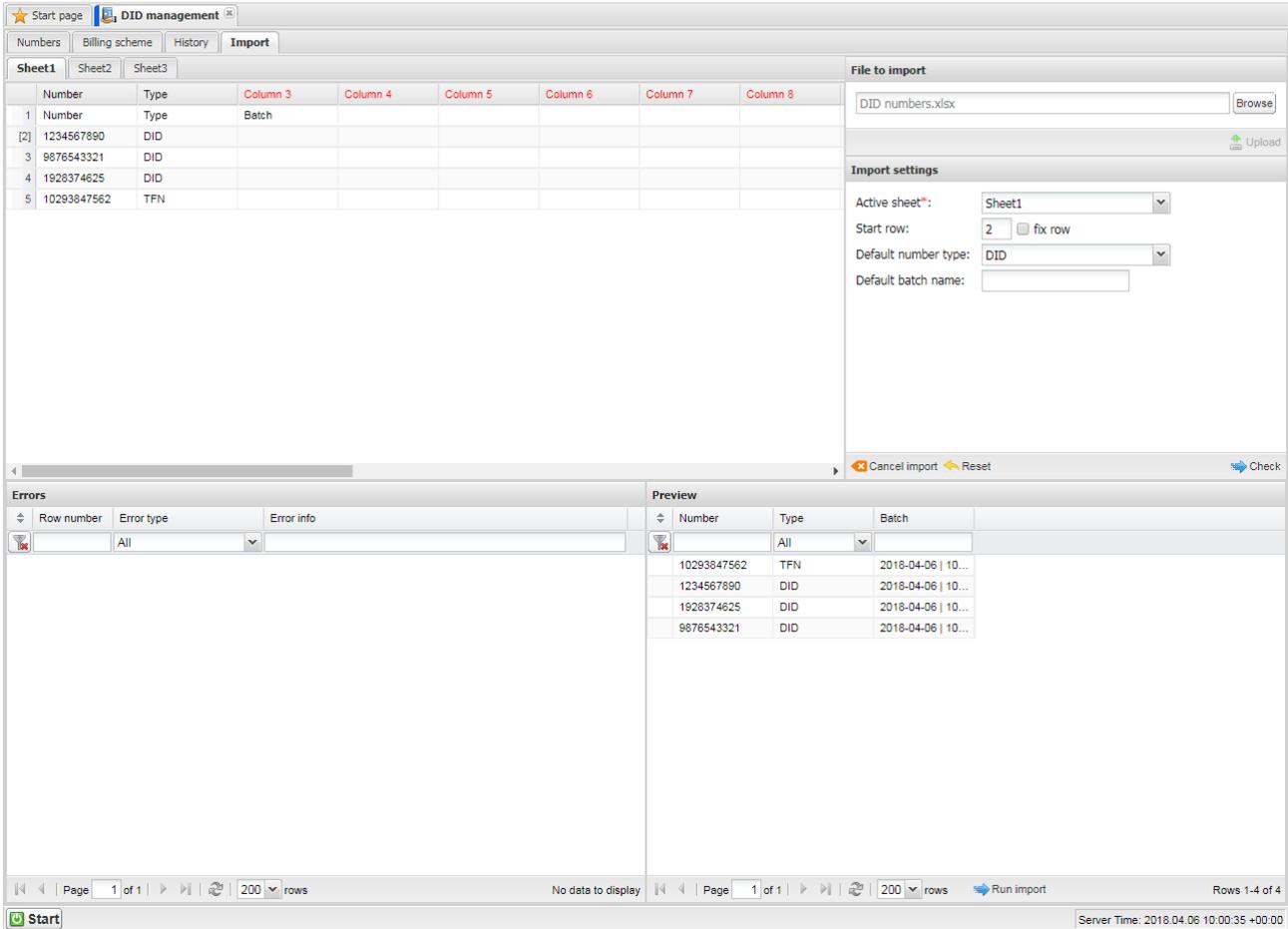
Numbers		Billing scheme	History	Import	
Change date	Change type	Batch	Number	Product	Billing scheme
-∞ ≤ X ≤ ∞	All			All	All
2018.03.23 10:58:19	Created	2018-03-23 | 10...	1111111111111111	-	-
2018.03.23 10:58:19	Assigned	2018-03-23 | 10...	1111111111111111	AM_DID - TFN (USD) - Vendor	NRC 5, MRC 10
2018.03.26 18:18:08	Modified	test_batch_bulk	1111111111111111	AM_DID - TFN (USD) - Vendor	NRC 5, MRC 10
2018.03.26 18:18:22	Modified	test_batch_bulk...	1111111111111111	AM_DID - TFN (USD) - Vendor	NRC 5, MRC 10
2018.03.26 18:18:51	Modified	test_batch_bulk...	1111111111111111	AM_DID - TFN (USD) - Vendor	NRC 5, MRC 10
2018.03.27 05:57:29	Modified	test_batch_bulk...	1111111111111111	AM_DID - TFN (USD) - Vendor	NRC 5, MRC 10

History tab sheet

12.4 Import

The *Import* tab sheet serves to add new numbers in bulk using a CSV or MS Excel file. The functionality is similar to [Reference books\Tag import](#)^[162].

The page consists of the following panels: the *File to import* and *Import settings* panels at the top right; the file preview at the top left of the page; the *Errors* panel at the bottom left of the page that displays import errors and the *Preview* panel at the bottom right of the page that shows the records to be imported.



The screenshot shows the 'DID management' web interface. At the top, there are tabs for 'Numbers', 'Billing scheme', 'History', and 'Import'. The 'Import' tab is active, showing a 'File to import' section with a text input field containing 'DID numbers.xlsx' and a 'Browse' button. Below this is an 'Upload' button. The 'Import settings' panel includes: 'Active sheet' set to 'Sheet1', 'Start row' set to '2' with a 'fix row' checkbox, 'Default number type' set to 'DID', and an empty 'Default batch name' field. At the bottom of the settings are 'Cancel import', 'Reset', and 'Check' buttons. Below the settings is a table with columns: 'Number', 'Type', 'Batch', and 'Error info'. The 'Preview' section shows a table with 4 rows of data:

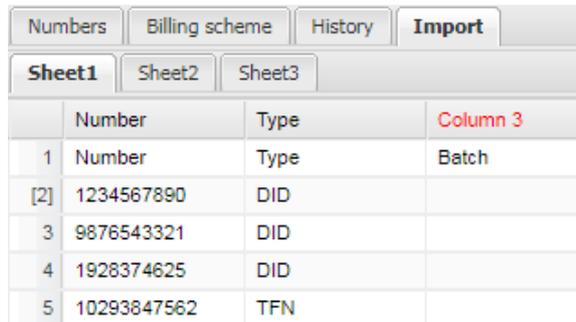
Number	Type	Batch	Error info
10293847562	TFN	2018-04-06 | 10...	
1234567890	DID	2018-04-06 | 10...	
1928374625	DID	2018-04-06 | 10...	
9876543321	DID	2018-04-06 | 10...	

The interface also shows a status bar at the bottom with 'Page 1 of 1', '200 rows', and 'No data to display'.

Import

To import a file with DID/TFN numbers, proceed as follows:

1. In the *File to import* section at the top right corner of the page select the file with numbers that need to be imported. The file must contain numbers and optionally their type and batch name (the type and batch can be also specified in *Import settings*)
2. Click  **Upload**. The file preview will appear in the top left panel the way it looks in MS Excel. Everything is shown "as is" – all cell contents and the overall file structure (sequence and naming of columns and worksheets) is preserved at this stage. To prepare the file for parsing, define the column types by clicking on the headers of the table. The mandatory column is *Number*.

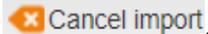


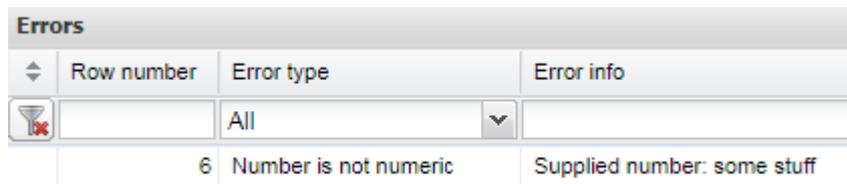
	Number	Type	Column 3
1	Number	Type	Batch
[2]	1234567890	DID	
3	9876543321	DID	
4	1928374625	DID	
5	10293847562	TFN	

Source file preview

3. Configure the parameters at the *Import settings* panel:

- *Active sheet*: select the spreadsheet that will be parsed (in case the original MS Excel file contains several spreadsheets)
- *Start row*: define the first row with the rate data, so that the System ignores everything that is above the table in the file. Check *fix row* to prevent the *Start row* value from changing when you navigate between rows in the preview
- *Default number type*: select *DID* or *TFN* if it was not defined in the preview. The value will be applied to all numbers

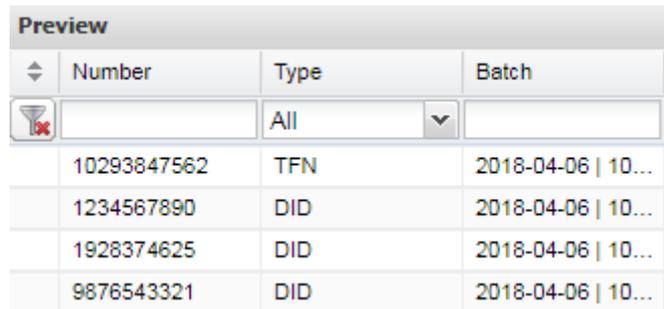
Click  **Check** to view the parsing results and errors. To clear the *Import settings* panel click  **Reset**. To clear all panels, click  **Cancel import**.



Errors			
Row number	Error type	Error info	
6	Number is not numeric	Supplied number: some stuff	

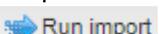
Errors panel

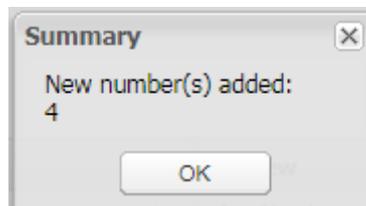
4. The *Errors* panel displays the list of parsing errors.



Preview			
Number	Type	Batch	
10293847562	TFN	2018-04-06 | 10...	
1234567890	DID	2018-04-06 | 10...	
1928374625	DID	2018-04-06 | 10...	
9876543321	DID	2018-04-06 | 10...	

Preview panel

5. The *Preview* panel shows the records that will be imported. Review the errors and preview records and click  **Run import**. Once the operation is complete, import summary will appear on the screen as shown below.



Import summary

13 Wholesale portal

13.1 Overview

The Wholesale portal is the System's web interface intended for partner carriers of the System owner. Based on their rights, partner carriers can view their statistics and create and edit SMS POIs.

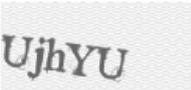
User accounts and access rights for the Wholesale portal are configured by the System owner in [Administration\Users](#)^[97]. User rights are configured in the *Roles* section of the *Add* tab (*Roles >> Partner portal*).

- Partner portal
 - Show rates tab
 - Show balance
 - Show finance info
 - Wholesale partner portal
 - Export CDRs/EDRs

Roles (Add tab, [Administration\Users](#)^[97])

Once the user account is created, the user will receive an email with account activation instructions. See also the [Alaris YouTube](#) video.

Please register

<input type="text" value="Tatiana"/>	<input type="text" value="B"/>	<input type="text" value="Pancakes"/>
<input type="text" value="Pocodiner Enterprises"/>		<input type="text" value="103123"/>
<small>Please enter your real company name. You will not be able to change this name later and you will always be identified with us with this name.</small>		
<input type="text" value="127000"/>	<input type="text" value="2 Bee Street Nowhere city"/>	
<input type="text" value="Albania (+355)"/>	<input type="text" value="+35512345678"/>	<input type="text" value="EUR"/>
<input type="text" value="pancakes@poco.com"/>	<input type="password" value="....."/>	 <input type="text" value="UjhYU"/>
<small>Use email address from your company domain for registration.</small>		<small>Enter your new password.</small>

[Back to login](#)

Wholesale portal registration form

The user can also register directly through the portal. For this purpose, click the *Registration* link on the login page and complete the appropriate fields in the registration form as illustrated above.

Info
User profile
Invoices
Payments

VoIP stats
VoIP rates
VoIP POIs
CDRs
SMS stats

EDRs

User profile

Company details

Contacts

Please make sure the following user roles are defined for your company (otherwise the service may be blocked): **Rates, Billing, NOC.**

+ Add new person

Rates	Jose	Ignacio
fin@pocodinero.ent	+74561237890	<input checked="" type="checkbox"/> Send rate changes <input checked="" type="checkbox"/> Send invoices <input checked="" type="checkbox"/> Send alarms
✔ Save	* All fields are required.	

Billing	John	Smith
bill@pocodinero.ent	+74561237891	<input checked="" type="checkbox"/> Send rate changes <input checked="" type="checkbox"/> Send invoices <input checked="" type="checkbox"/> Send alarms
✔ Save	* All fields are required.	

Portal front page

The portal front page contains the following sections and controls:

- *Menu*: shows the following items (displayed depending on the user permissions): *Info, User profile, Invoices, Payments, SMS Stats, SMS Rates, SMS POIs* and *EDRs*
- *User profile*: contains two tab sheets: *Contacts* and *Company details*:
 - The *Contacts* tab sheet shows information about the carrier's users: *Position, First name, Last name, Phone, Email* address for sending notifications and *Notifications* checkboxes (*Send rate changes, Send invoices, Send alarms*)
 - The *Company details* tab sheet shows the company's name, region and address

User: **sa sa**
[Reset password](#)

Valid till: **2023.05.16**

Carrier name: **sa_test_10**

Timezone: **GMT 0**

Balance

Peas or peace? That is the question.



1320.80 USD
 +5.00 USD 

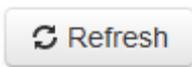


Account details and Balance sections

- *Account details* section at the top right corner of the page shows the account summary. It also contains the *Reset password* link
- *Balance* section: displays the account balance in the carrier's and System currencies as well as the user credit (see also the [Alaris YouTube](#) video). It also shows the content of the *Description* field from [Carriers\Accounts](#)^[109]. This allows easier differentiation of accounts created for a single carrier. When no description is available, the carrier's name and account currency are shown. Point the cursor to the amount to view the billing period and latest balance update date. Click  to update the balance. Click  to top up the balance. Enter the amount in the edit box and click  to use Paypal,  to use Authorize.net or  to use PayOnline

NOTE: Prior to using this function, an account must be created at Paypal, Authorize.net and PayOnline respectively and configured in [Administration\System settings\Partner portal](#)^[57]. The user must have the *Show purchase tab* permission enabled in [Administration\Users](#)^[97].

- The top right corner of the page contains the  button and the session expiry timer . A minute before the session expires, the user is offered to renew the session or log out. The default session time is 10 minutes. Click on the timer to renew the session at any time

Pages containing tables have the  button that serves to update the page, and the

 button that serves to import the table to an xls file.

NOTE: It is possible to customize the portal header and hide *Powered by Alaris Labs* footer which, by default, is shown in the interface. Contact the Alaris technical support team.

13.2 Invoices

The *Invoices* page contains a list of the carrier's invoices.

Pending invoices

Show 10 entries Search:

ID	Reference code	Start date	End date	Issue date	Due date	Amount
SA_life USD	AL_0005651_9379...	2020.07.01 00:00:00	2020.08.01 00:00:00	2020.07.31 00:00:00		
SA_life USD	AL_0005528_9379...	2020.05.01 00:00:00	2020.06.01 00:00:00	2020.05.31 00:00:00		
SA_life USD	AL_0005502_9379...	2020.04.01 00:00:00	2020.05.01 00:00:00	2020.04.30 00:00:00		xls
SA_life AED	AL_0003022_2545...	2019.07.01 00:00:00	2019.08.01 00:00:00	2019.07.31 00:00:00		xls
SA_life AED	AL_0004832_2545...	2019.06.01 00:00:00	2019.07.01 00:00:00	2019.06.30 00:00:00		xls

Showing 1 to 5 of 5 entries ← Previous 1 Next →

Invoices

Click on the value in the *Reference code* column to open the invoice cover sheet (in pdf format). Click on the *xls* link in the *Amount* column to view the traffic details file (in xls format).

13.3 Payments

The *Payments* page contains a list of the carrier's payments.

Payments

Show 10 entries Search:

Account	Acc. currency	Reference code	Date	Amount
Peas or peace? That ...	USD	202008191517#12862	2020.08.19 15:17:56	15
Peas or peace? That ...	USD	202008191526#12875	2020.08.19 00:00:00	1000

Showing 1 to 2 of 2 entries ← Previous 1 Next →

Payments

The *Account* field shows the content of the *Description* field in [Carriers\Accounts](#)¹⁰⁹. This allows easier differentiation of accounts created for a single carrier. When no description is available, the carrier's name and account currency are shown.

13.4 SMS Stats

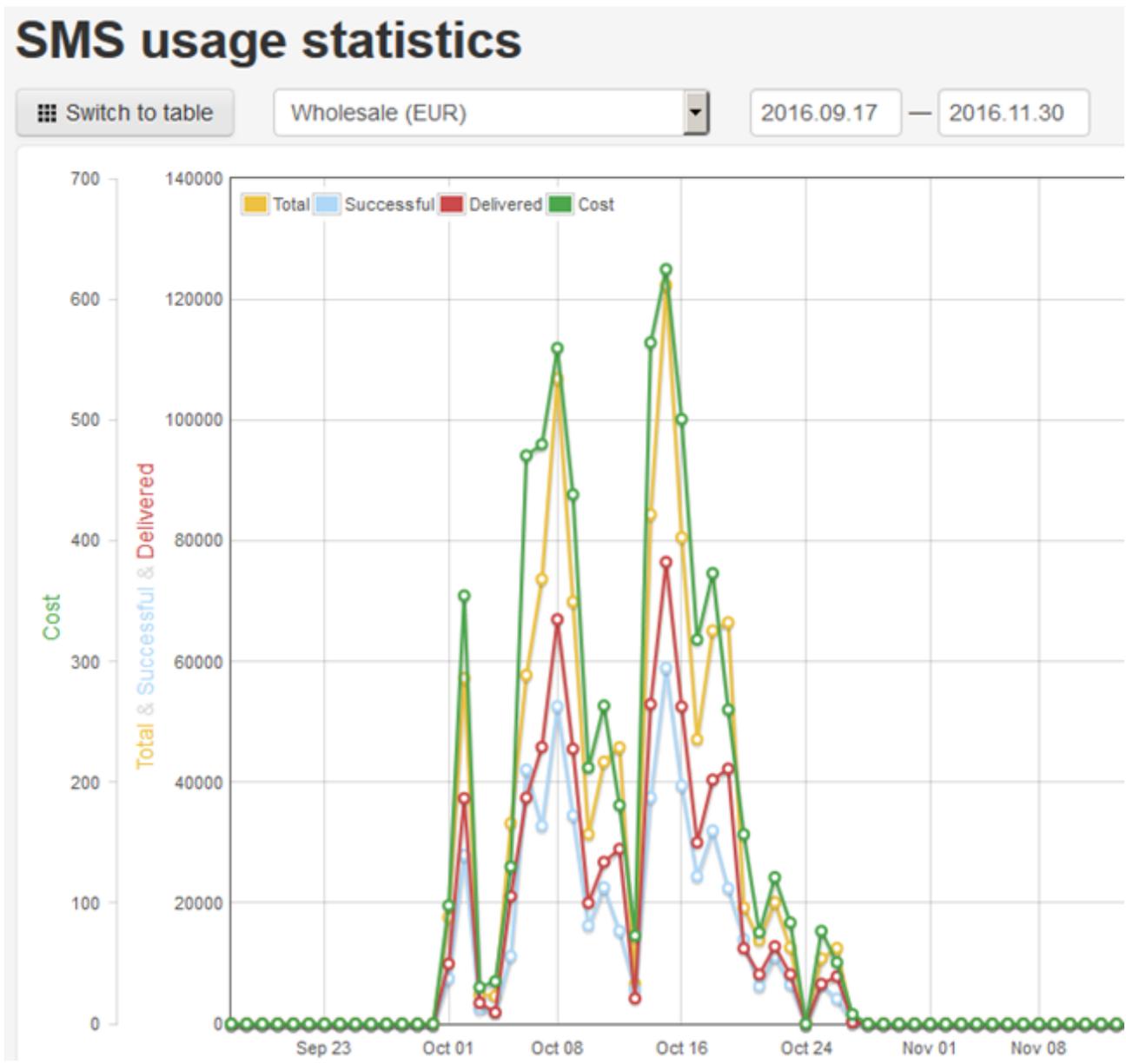
The *SMS Stats* page contains the carrier's statistics on SMS transfer.



SMS usage statistics

To view the statistics, select the product in the drop-down list and specify the period in the edit fields.

Click  Switch to chart for a chart view.



SMS usage statistics chart view

NOTE: The traffic cost is shown in the account currency of the selected product as of the date of the stats calculation.

13.5 SMS rates

The *SMS rates* page contains a table of the carrier's active rates. To view the statistics, select the product in the drop-down list and specify the date in the *Active at* field.

Current SMS rates

Wholesale (EUR)

Active at: 2016.11.16

Search:

MCC	MNC	Country code	Country	Network
202			Greece	All networks
202	01		Greece	Cosmote
202	05		Greece	Vodafone Greece
202	09		Greece	Wind Hellas
202	10		Greece	Wind Hellas
204			Netherlands	All networks
204	02		Netherlands	TELE2 Nederland B.V.
204	04		Netherlands	Vodafone Libertel BV

Current SMS rates

13.6 SMS POIs

The *SMS POIs* page contains two tab sheets: *List of SMS POIs* and *Add new SMS POI* (displayed if the user has the rights to create/edit SMS POIs; the rights are configured in [Carriers/Users](#) ⁹⁷, *Add* tab, *Roles* >> *Carriers* >> *SMS POI edit*)

SMS POIs

List of SMS POIs

[Add new SMS POI](#)

ID	Product	Currency	IP	Port
✘ 10652	Wholesale (vendor)	EUR	31.63.248.252	30000
✘ 10640	Wholesale (client)	EUR	79.154.228.42	
✘ 10683	Wholesale (client)	EUR	39.178.120.109	
✘ 11000	Premium (client)	USD	0.0.0.0	

SMS POIs

To add a new *SMS POI*, open the *Add new SMS POI*, select the product and enter the IP address.

Add new SMS POI

* Product: Wholesale (EUR)

* IP: 31.63.248.251

Add new SMS POI

13.7 EDRs

The *EDRs* page serves to download EDRs for a specified period.

Download EDRs ×

Product

Date range

File format

Download

Select the product, specify the period and file format and click . Once the file is downloaded, the download link will be sent to the user's email address (as configured in [Carriers/Users](#)^[9†]).

NOTE: Buffered EDRs are not exported; also, only the EDRs of the last SMS send attempt are exported. See the [Alaris YouTube video](#).

14 Alaris Campaign Portal

Alaris Campaign Portal enables the user to carry out SMS marketing campaigns - that is, bulk mailouts of messages to a predefined list of subscribers. Additionally, it allows sending SMS from third-party applications and websites (for example, confirmation codes and other notifications).

The Campaign Portal can be used by the customers of the System owner as a valuable service. Each customer can have their own account in the Campaign Portal.

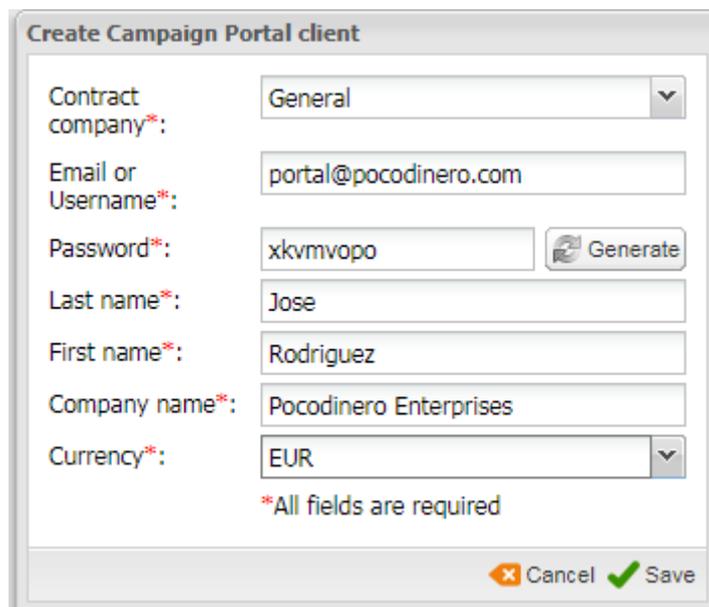
To have your Campaign Portal installed, contact the Alaris technical support team and provide them with a dedicated domain name for the IP address where the main System is located.

14.1 Providing access to Alaris Campaign Portal

Request the Alaris Campaign Portal access link (or several links if necessary) from the Alaris support team and assign it to a contract company in the [Reference books\Contract companies](#) ^[99] (*Campaign Portal URL* field).

To provide customers with a Campaign Portal account, use one of the following procedures:

1. Create a user in the [Carriers\Carriers](#) ^[99] page. Click [Create Campaign Portal client](#) at the bottom of the [Carriers\Carriers](#) ^[99] page to open the *Create Campaign Portal client* form. Complete the appropriate fields and click [Save](#) ^[163]. The new record appears in the list of carriers. The *Company name* is displayed in the *Carrier name* column.



Create Campaign Portal client

2. A customer can register directly in the Alaris Campaign Portal. Open the login page, click *Don't have an account?* and complete the user registration form. You will be sent an email with account activation instructions. See also the [Alaris YouTube](#) video

 English

[Don't have an account?](#)

[Forgot password?](#)

[Terms and conditions](#)

Alaris Campaign Portal login page

In the course of registration, the following entities are automatically created in the main System interface for the new user: a carrier, a user, an agreement and an account.



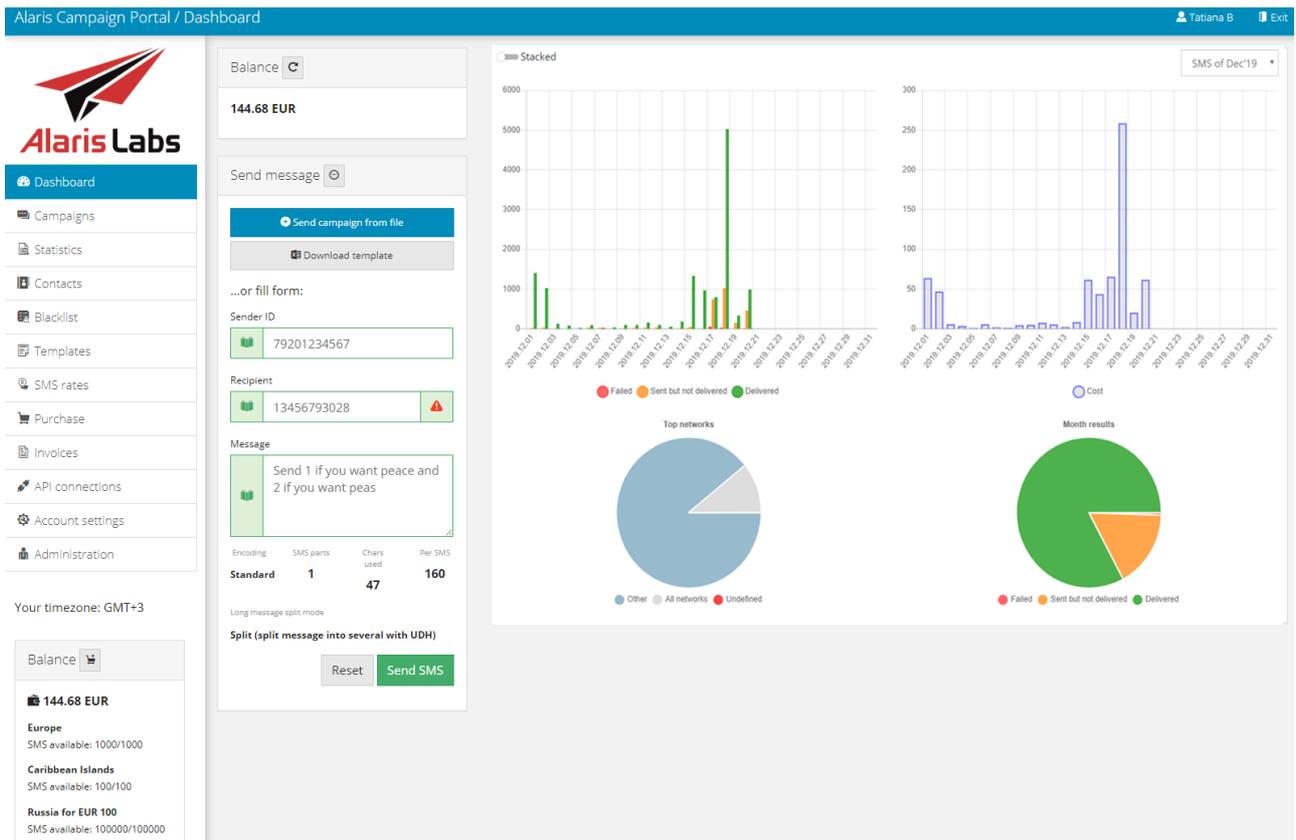
Tatiana	B	Pancakes
Hornes and Hooves		VAT ID
127000	2 Bee Street Nowhere city	
Albania (355) ▼	+189230485€	EUR ▼
Cannot be changed afterwards		
pancakes@hoho.com	pancakes@hoho.com	
.....	
	r6cey	r6cey
Return to Sign in	<input checked="" type="checkbox"/> Agree with all Terms and Conditions	
Sign up		

Alaris Campaign Portal registration form

The user is asked to agree with Terms and Conditions. The text of the Terms and Conditions is configured in [Reference books\Contract companies](#) ^[164] or loaded directly on the Campaign Portal server.

NOTE: Terms and conditions are downloaded to the Portal server by request. To do this, contact the Alaris technical support team.

The main page of the Alaris Campaign Portal consists of two panels: the left panel is the menu and balance information, and the right panel displays the section selected in the menu.



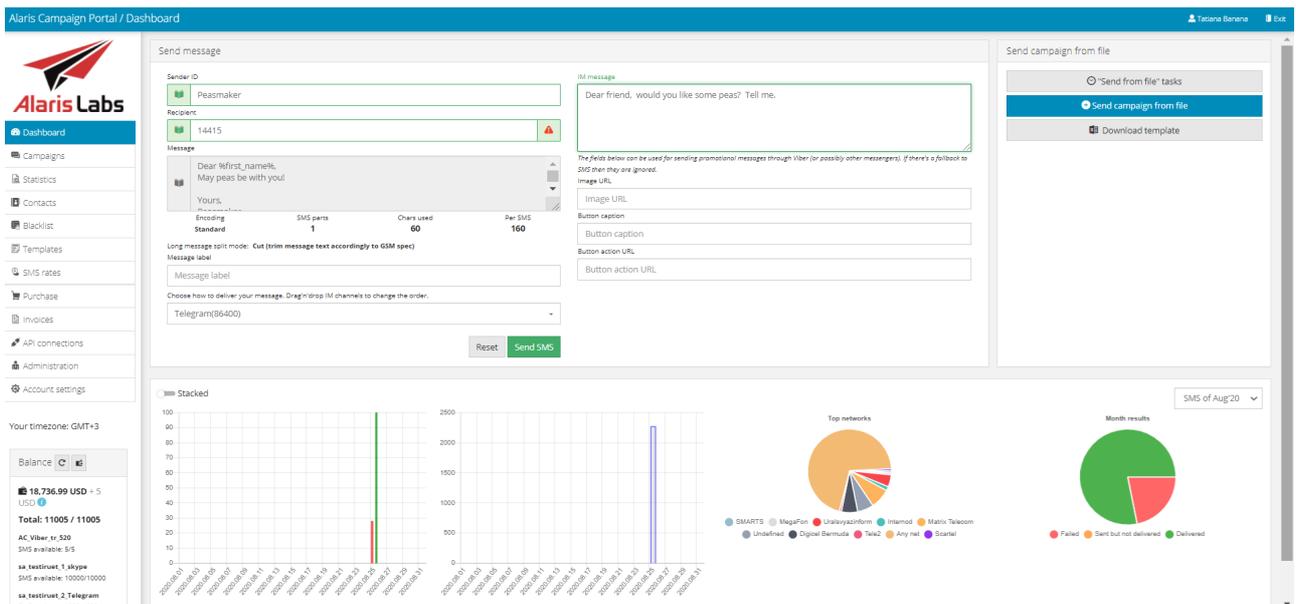
The screenshot shows the main dashboard of the Alaris Campaign Portal. On the left is a navigation menu with options like Dashboard, Campaigns, Statistics, Contacts, Blacklist, Templates, SMS rates, Purchase, Invoices, API connections, Account settings, and Administration. The main area is divided into several sections: a 'Balance' section showing 144.68 EUR; a 'Send message' form with fields for Sender ID (79201234567), Recipient (13456793028), and Message; and a 'Send campaign from file' section. On the right, there are two charts: a 'Stacked' bar chart showing message status over time (Failed, Sent but not delivered, Delivered) and a 'Month results' pie chart showing the distribution of message statuses. A 'Top networks' pie chart is also visible.

Alaris Campaign Portal main page

The Alaris Campaign Portal header, theme and logo can be customized to suit your business needs. Contact the Alaris technical support team if you need customization.

14.2 Dashboard

The *Dashboard* contains the most frequently used controls: *Balance*, *Traffic stats* and *Send message*.



This screenshot provides a more detailed view of the dashboard. The 'Send message' form is expanded, showing fields for Sender ID (Peasmaker), Recipient (14415), and Message. It also displays technical details like Encoding (Standard), SMS parts (1), Chars used (60), and Per SMS (160). The 'Send campaign from file' section includes options for 'Send from file' tasks and a 'Download template' button. The charts on the right are more detailed, with the 'Stacked' chart showing data for August 2019 and the 'Month results' pie chart showing a higher proportion of 'Delivered' messages. The 'Top networks' pie chart lists various carriers like SMARTS, MegaFon, and Uralynazinform.

Dashboard

Balance. Click  to update the balance information and point to  to view the allowed credit (the credit is also displayed in grey font next to the balance). The credit is configured in the *In Credit* field of [Carriers\Agreements](#)^[111]. The *Total* row displays the number of used / remaining messages for all available packs. Find out more in the [Alaris YouTube video](#).

Traffic stats contains diagrams on cost, delivery and top 5 networks for the appropriate month, which is selected in the drop-down window at the top right corner. Click *Stacked* on top of the charts to show all data types (*Failed*; *Sent but not delivered*; *Delivered*) in a single bar or in separate bars. Click on the data/network type to hide it from the chart. The *Top networks* and *Month results* pie charts will only be shown if there is available data for them.

Send message: the control allows quickly sending one or several messages for testing purposes. Complete the following fields:

- *Sender ID:* alphanumeric string (16 characters maximum).
- *Recipient:* the recipient's phone number (must contain the country code)

NOTE: The *Recipient* field value is verified for matching the regular expression set in the System parameter *E.164 number pattern (POSIX format)* ([Administration\System settings\Partner portal](#)^[51]). If verification is successful, the field will be highlighted in green. See also the [Alaris YouTube video](#).

- *Message:* message text

NOTE: Click  next to each field to insert records from an appropriate reference book. The Recipient reference book is configured in [Alaris Campaign Portal\Contacts](#)^[399]. The Message text templates and Sender IDs are configured in [Alaris Campaign Portal\Templates](#)^[403].

- *Long message split mode:* displays the value of the same-name parameter in *Account settings* and can display one of the following values:
 - *Cut (trim message text according to GSM spec)*
 - *Payload (send SMPP message with text in message_payload field)*
 - *Split (split message into several with UDH)*
 - *Split (using SAR TLV fields)*
- *Message label:* specify the campaign's external ID (if necessary).
- Select the currency (available if multiple accounts with different currencies are configured for the user's carrier)
- *Choose channel:* choose the message send channel (SMS or an instant messaging channel). Drag and drop channels to change their order when necessary. The available values in this field depend on the rate plans and packs to which the user is subscribed. For example, if packs for sending messages through Telegram and WhatsApp were purchased, only these services will be available for selection. The System will attempt to send the message to the first service in the list. If it fails, the System switches to a next-in-line service until the message is successfully sent/delivered or the list of available services is exhausted

The following parameters are IM-specific and are available when at least one IM channel is selected:

- *IM message:* IM message text. Fill in the value if you wish to send the message through IM channels

- *Image URL* (specific for Viber messages (*promotion* type)): the link to an image sent in the message
- *Button caption* (specific for Viber messages (*promotion* type)): the link to a button sent in the message
- *Button action URL* (specific for Viber messages (*promotion* type)): URL opened when clicking the button sent in *Button caption*
- *Expect user response* (specific for Viber messages (*promotion* type)): enable to send the message to which the user will be able to respond
- *Message purpose: Transaction / Promotion* (specific for Viber messages): use this radio button to select message type for messages sent through Viber. Select *Transaction* for messages that can contain plain text only and *Promotion* for messages that can contain buttons and links.

Click **Send SMS**.

NOTE: When a user sends a message through Alaris Campaign Portal, the rates are searched only within products that are associated with the Campaign Portal. Such products must meet one of the following conditions:

- The product name is *SMS Retail*

OR

- The POI of this product has the Service type value equal to the System owner parent product ID

If none of the conditions are met, the SMS is rejected as no suitable rates are found. See also the [Alaris YouTube video](#).

Alternatively, click **Send campaign from file** to load the campaign parameters from a MS Excel file. For regular SMS, the file must contain three columns: Sender ID, Destination number and Message text. For instant messages, the file must additionally contain the column IM message, and for Viber promotion messages - also Image URL, Button caption, and Button action URL. Click **Send SMS**. In the *Send campaign from file* dialog configure the column headers as appropriate and click **Send messages**.

Send campaign from file

Sender ID	Destinatio	Message	IM messag	-- ch
Sender ID	Destination address	Message text	IM message	Image t
234543	13454325	hello	hello	
123456	2349058	hello	hello	
234567	234987	hello	hello	
345678	123490	hello	hello	

« < 1 2 3 4 5 > »

Message Purpose: **Transaction** / Promotion

Expect user response

Choose how to deliver your message. Drag'n'drop IM channels to change the order.

Viber(86400), SMS

Cancel

Send messages

Send campaign from file

To check the status of the campaign, go to the [Campaigns](#) page and click  "Send from file" tasks.

Campaigns Send from file" tasks

Launch time	Update time	Status	Found in file / sent
2020.06.15 16:41:00	2020.06.15 16:41:01	New	24 / 0

Send campaign from file
Refresh
Download template

Send from file tasks

14.3 Campaigns

The *Campaigns* page serves to create new campaigns and manage existing ones. A campaign is a bulk mailout that is sent to the list of contacts specified in it. The cost per SMS varies on the destination country of each contact.

Messages are either billed to the appropriate SMS package decreasing its SMS count or are deducted from the user's account balance if the user has a rate plan for the message MCCMNC. If both an SMS package and rate plan are applicable, messages are billed to the SMS package.

Search of applicable rates is performed by MCCMNC/MCC, including the MCC 'Rest of World' (the default value is 777 and can be changed in [Administration\System settings\SMS routing](#)).

Campaigns Send from file" tasks

Campaign name	Message template	Campaign status	Schedule date	Start date	Finish date	
Discount for peas/peace	Dear customers, below is your discount	Completed	08/24/2020 5:27PM	08/24/2020 5:27PM	08/24/2020 5:27PM	  
peas camp	Dear %first_name%, May peas be with you. Your peasmaker	Completed	08/24/2020 5:26PM	08/24/2020 5:26PM	08/24/2020 5:26PM	  

Create campaign

Campaign's summary Repeat campaign

Campaign name	Discount for peas/peace	Schedule date	08/24/2020 5:27PM	SMS processed	3 of 3	Sender ID	Maria
Status	Completed	Start date	08/24/2020 5:27PM	SMS sent/rejected	0 / 3	Tags	Fairy guys
Approx. cost	0 USD	Finish date	08/24/2020 5:27PM	Long message split mode	Cut	Message template	Dear customers, below is your discount
No of messages	3					Reply template name	peas no peas
Message label	-						

Campaigns

The page consists of two tabs: *Campaigns* and "Send from file" tasks.

The *Campaigns* tab contains a table with a list of campaigns. The table columns display the following information:

- Campaign name
- Message template
- Campaign status

NOTE: The System allows sending email notifications if the SMS campaign status changes to *Paused*, *Canceled*, *Completed* or *Failed*. The texts of the notifications are defined in the following templates

([Administration\Template manager](#)^[75]): [SMS campaign fail threshold letter \(html\)](#), [SMS campaign failed messages resend notification \(html\)](#), [SMS campaign resuming notification \(html\)](#), [SMS campaign start letter \(html\)](#), [SMS campaign status change letter \(html\)](#). The email addresses (comma-separated) where notifications of campaign status change are sent are configured in the System parameter *Campaign status change notification emails* ([Administration\System settings\Partner portal](#)^[51]). See also the [Alaris YouTube](#) video.

- *Schedule date*: the date specified in the *Set a future time control*
- *Start date, Finish date*: start and end date of the campaign. See also the [Alaris YouTube](#) video

Click  in the appropriate table record to display the campaign summary (appears below the *Campaigns* table).

NOTE: For campaigns that are in progress, the campaign summary statistics is updated in real time.

Click  to delete a completed campaign and  to resend failed messages. While the campaign is in process, the  button is replaced with  that allows pausing the sendout process.

To create a new campaign, click [Create Campaign](#).

[← Back to campaigns](#)

1. Choose a sender ID or create new i



Continue to next step >

2. Message content

3. MO reply templates

4. Contacts

5. Customize & review

Test campaign

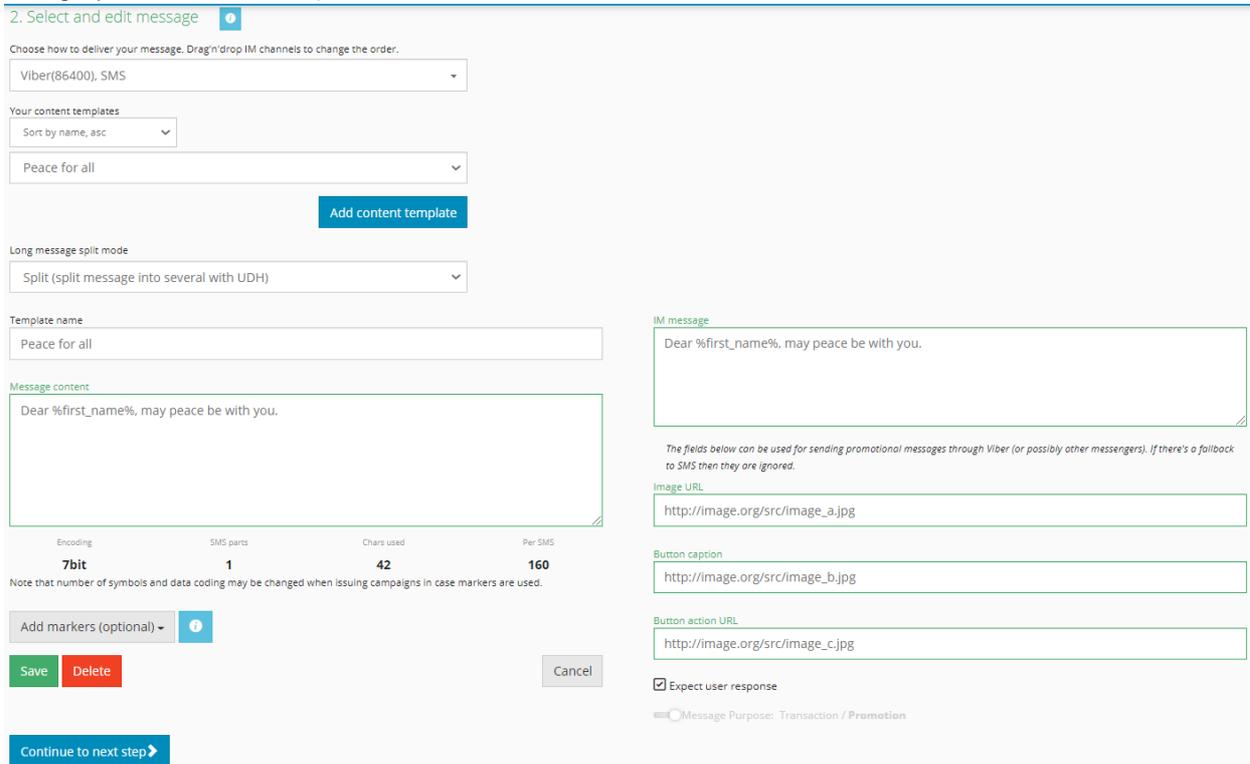
i

Submit campaign

Create campaign dialog

Follow the steps of the *Create campaign* dialog:

1. Choose a sender ID or create a new one. Click  to select the sender ID or type a new one in the edit box. A sender ID is the name of the person or company that is sending the SMS (alphanumeric string up to 16 characters). Click [Continue to next step >](#).



2. Select and edit message

Choose how to deliver your message. Drag'n'drop IM channels to change the order.

Viber(86400), SMS

Your content templates
Sort by name, asc
Peace for all
[Add content template](#)

Long message split mode
Split (split message into several with UDH)

Template name
Peace for all

Message content
Dear %first_name%, may peace be with you.

Encoding	SMS parts	Chars used	Per SMS
7bit	1	42	160

Note that number of symbols and data coding may be changed when issuing campaigns in case markers are used.

Add markers (optional) 

[Save](#) [Delete](#) [Cancel](#)

[Continue to next step >](#)

IM message
Dear %first_name%, may peace be with you.

The fields below can be used for sending promotional messages through Viber (or possibly other messengers). If there's a fallback to SMS then they are ignored.

Image URL
http://image.org/src/image_a.jpg

Button caption
http://image.org/src/image_b.jpg

Button action URL
http://image.org/src/image_c.jpg

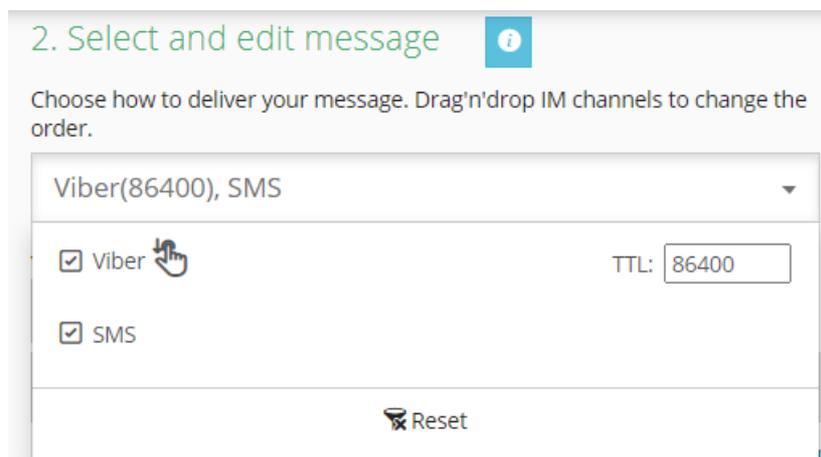
Expect user response

Message Purpose: Transaction / Promotion

Select and edit message

2. *Select and edit message.*

- a. Choose the message send channel (SMS or an instant messaging channel).



2. Select and edit message

Choose how to deliver your message. Drag'n'drop IM channels to change the order.

Viber(86400), SMS

Viber  TTL: 86400

SMS

[Reset](#)

Choosing the message send channel

Drag and drop channels to change their order when necessary. The available values in this field depend on the rate plans and packs to which the user is subscribed. For example, if packs for sending messages through Telegram and WhatsApp were purchased, only these services will be

available for selection. The System will attempt to send the message to the first service in the list. If it fails, the System switches to a next-in-line service until the message is successfully sent/delivered or the list of available services is exhausted

2. Select and edit message 

Choose how to deliver your message. Drag'n'drop IM channels to change the order.

WhatsApp(120), Viber(86400)

Your content templates

Sort by name, asc

Peas or peace

[Add content template](#)

Long message split mode

Cut (trim message text accordingly to GSM spec)

Template name

Peas or peace

Message content

Dear %first_name%,
May peas be with you.

Your peasmaker

Encoding	SMS parts	Chars used	Per SMS
7bit	1	58	160

Note that number of symbols and data coding may be changed when issuing campaigns in case markers are used.

Add markers (optional) 

[Cancel](#) [Delete](#) [Save](#)

[Continue to next step](#)

IM message

Dear %first_name%,
May peas be with you

The fields below can be used for sending promotional messages through Viber (or possibly other messengers). If there's a fallback to SMS then they are ignored.

Image URL

http://image.org/src/image_1.jpg

Button caption

http://image.org/src/image_2.jpg

Button action URL

http://image.org/src/image_3.jpg

Expect user response

Message Purpose: Transaction / Promotion

Step 2. Select and edit message

- b. In the drop-down list *Your content templates*, select an existing message or click *Add content template* to create a new one and fill in the *Template name* and *Message content* fields. Select the long message split mode (possible values are explained in [Alaris Campaign Portal\Dashboard](#)^[383]), review and, if necessary, edit the message. Optionally, using the *Add markers* drop-down list, include markers to the text to personalize the message. The marker values are substituted to the message from the [Alaris Campaign Portal\Contacts](#)^[399] page. The user can also create custom markers in the [Administration\Custom fields](#)^[413] tab.

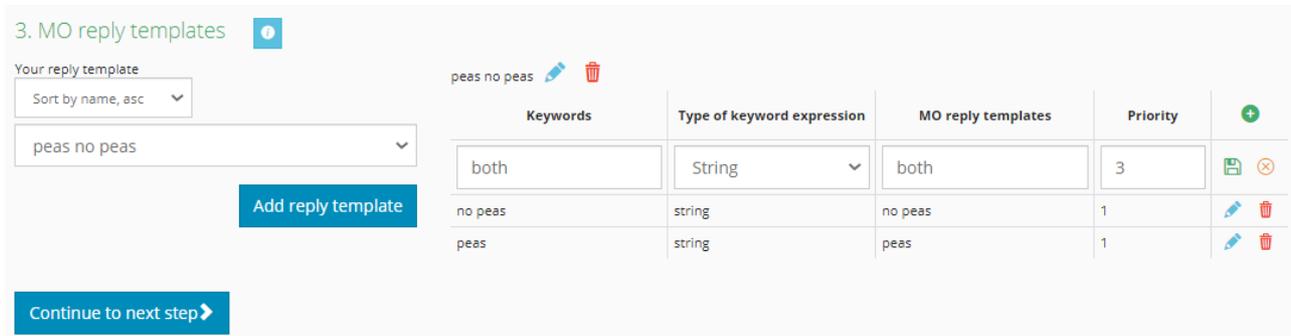
If at least one IM channel is selected, the following parameters are available:

- *IM message*: IM message text. Fill in the value if you wish to send the message through IM channels
- *Image URL* (specific for Viber messages (*promotion* type)): the link to an image sent in the message
- *Button caption* (specific for Viber messages (*promotion* type)): the link to a button sent in the message
- *Button action URL* (specific for Viber messages (*promotion* type)): URL opened when clicking the button sent in *Button caption*
- *Expect user response* (specific for Viber messages (*promotion* type)): enable to send the message to which the user will be able to respond
- *Message purpose: Transaction / Promotion* (specific for Viber messages): use this radio button to select message type for messages sent through Viber. Select *Transaction* for

messages that can contain plain text only and *Promotion* for messages that can contain buttons and links.

When finished, click [Continue to next step >](#).

3. *MO reply templates*. MO replies are automatic responses to MO messages that were received in response to a campaign. To use the feature, configure MO reply templates.



3. MO reply templates

Your reply template
Sort by name, asc

peas no peas

[Add reply template](#)

[Continue to next step >](#)

Keywords	Type of keyword expression	MO reply templates	Priority
both	String	both	3
no peas	string	no peas	1
peas	string	peas	1

MO reply templates

a. To create a template, click [Add reply template](#). In the *Reply template name* field

Reply template name

Peas [Save](#) [Cancel](#)

enter the template name and click [Save](#).



Keywords	Type of keyword expression	MO reply templates	Priority
both	String	both	3
peas	string	peas	2
no peas	string	no peas	1

Adding a new template

b. In the table that appears, configure the following parameters of the template:

- *Keywords* - allows setting several templates for each Keyword+User reply pair
- *Type of keyword expression* (string or regular expression)
- *MO reply templates* - reply templates to the user's response
- *Priority* - the order in which MO message keywords must be checked (from higher to lower priority, or, if priorities are equal, from a higher to a lower ID).

Once the Campaign Portal receives a MO response from the end user, it compares the response text to the template from the *Keywords* field, and if a match is found, it sends the user the appropriate text from the *MO reply templates* field. An EDR is written for each response, and the responses are billed.

NOTE: Templates can also be configured at the *Templates* page ([Alaris Campaign Portal\Templates](#) ⁴⁰⁵).

4. Select tags 

Tags

Sort by creation date, desc

Search tag

Short tag names

Mobile number	First name	Last name	Tags	Comments
1234567890	Cerberus	Greek	<input type="button" value="FairyGuys"/>	<input type="button" value="X"/>
987654321	Mary	Popins	<input type="button" value="FairyGuys"/>	<input type="button" value="X"/>
9087654321	Sherlock	Holmes	<input type="button" value="FairyGuys"/>	<input type="button" value="X"/>
928347261523	Zeus	Greek	<input type="button" value="FairyGuys"/>	<input type="button" value="X"/>
1341234567	William	Buffalo	<input type="button" value="FairyGuys"/>	Be careful when interacting with.
1341928375	Never	Say Never	<input type="button" value="Secret service"/>	You can't be too careful with him

Select tags

4. **Select tags.** Select tags and configure the list of recipients. Tags are groups of recipients that are configured in the [Alaris Campaign Portal\Contacts](#) ^[399] page. Click on the appropriate tag, then click the **Show contact list** button. In the contact list that appears, select the sort order and edit the list of recipients if necessary. Click  to remove the recipient from the mailout (it will stay in the [Alaris Campaign Portal\Contacts](#) ^[399] page). To add a new recipient(s), click **Add Contact** or **Upload contact list** (for instructions refer to [Alaris Campaign Portal\Contacts](#) ^[399]). When finished, click **Continue to next step >**.

5. Send or program campaign 

Currency:

Campaign description:

Message label:

Minimal No. of failed messages to alert:

Notification emails:

Email list:

Date:

Hour: Minutes:

Timezone:

Send or schedule campaign

NOTE: To return to any previous step click  **Edit** next to the step or double-click on the blank area under the name of the step.

5. **Send or program campaign.** Select the campaign currency and provide a description in the *Campaign description* field. In the *Message label* field specify the campaign's external ID (if necessary). In the

field *Notification emails* select the list or emails that will receive notification of the campaign start. The lists are configured in the *Notification emails* tab of [Alaris Campaign Portal\Templates](#) page. Also, you can specify the threshold of failed SMS messages (percentage) in the field *Minimal No of failed messages to alert*. When the threshold is reached, notifications will be sent to the emails specified in the *Notification emails* field. The templates for both types of notifications are configured [Administration\Template manager](#).

- Click *Start now* for immediate launch or *Set a future time* for a scheduled mailout, and specify the date and time and the timezone. By default the user's timezone is specified.

Test campaign

Send to number	<input type="text" value="79101234567"/>	
Sender ID	Peas maker	
Message content	Dear %first_name%, may peace be with you.	

Test campaign

- Click **Test Campaign** to test the mailout. In the dialog that appears, specify the number to which the SMS will be sent, and click **Send SMS**.

NOTE: To send a message to a number, it is required to have an SMS pack or rate plan including its country/network as well as non-zero balance or credit limit.

- Click **Submit Campaign**.

Confirm campaign

Sender ID	Peasmaker
Message content	Dear %first_name%, May peas be with you!
	Yours, Peasmaker
Tags	Fairy Guys
Starting time	08/25/2020 5:03PM
Approx. cost	51 USD
Details	Number of messages by destination: Russian Federation: 1 United States: 2 Duplicate numbers: None Total numbers: 3
Long message split mode	Cut (trim message text accordingly to GSM spec)
No of messages	3

No prices are available
for some of the
specified numbers

Download report



Cancel

Create campaign

Confirm campaign

9. In the preview window that appears, fill in the CAPTCHA edit box and click **Create Campaign** again. The campaign will appear in the table.

NOTE: It is possible to disable association of the generated CAPTCHA to the IP address, to allow customers with a dynamic IP address to send campaigns. This feature is activated for the entire Alaris Campaign Portal. To activate it, contact the Alaris technical support team and communicate the code BZ38788.

Campaigns ⓘ

Campaigns "Send from file" tasks

Launch time	Update time	Status	Found in file / sent	Long message split mode
2020.08.25 12:07:02	2020.08.25 12:07:09	Completed	601 / 0	Cut

Drop Files Here

[Send campaign from file](#) [Refresh](#) [Download template](#)

"Send from file" tasks

The "Send from file" tasks tab allows loading the campaign parameters from a MS Excel file (same as in the Dashboard). For this purpose, click [Send campaign from file](#). Click [Download template](#) to download a MS Excel file that contains all the columns required for launching a campaign with the help of the [Send campaign from file](#) button. The table shows a list of campaigns launched from file.

 Send campaign from file

USD ▾

Sender ID ▾	Destination number ▾	Message ▾
Sender ID	Recipient	Message text
123456	2349058	hello
234567	234987	hello
345678	123490	hello
23667	21346677	hello

« < 1 2 3 4 5 > »

Message label

Your reply template

peas no peas
▾

Long message split mode

Cut (trim message text accordingly to GSM spec)
▾

Cancel
Send messages

Send campaign from file form

Drag and drop the campaign file to the *Drop files here* area or click on the it to open the file upload dialog. Configure the fields as illustrated in the figure above:

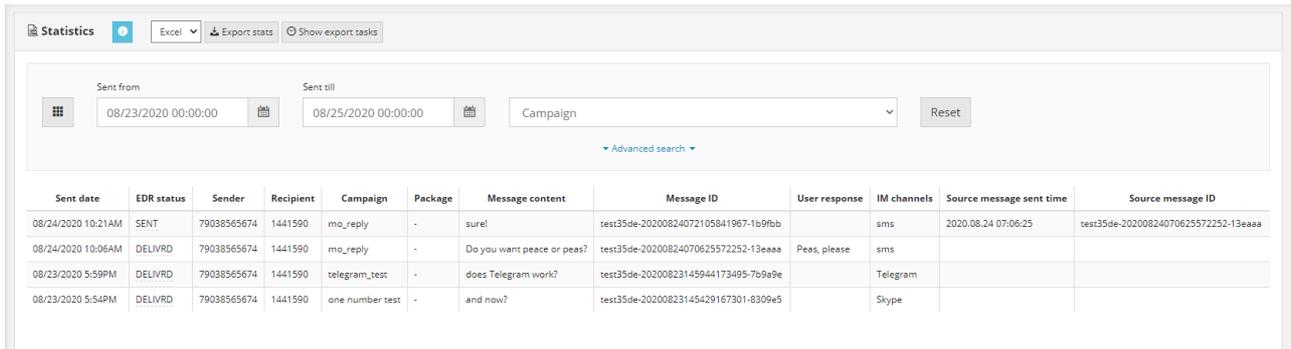
- *Currency*
- Set the columns by assigning them appropriate headers
- *Message label*: if necessary, specify the campaign's external ID
- *Your reply template*: select a MO reply template (configured at the [Templates](#) ⁴⁰³¹ page)

- *Long message split mode*: select the long message split mode (possible values are explained in [Alaris Campaign Portal\Dashboard](#) ³⁸³)

Click  to submit the campaign. It will appear in the table of "Send from file" tasks.

14.4 Statistics

The *Statistics* page shows the stats for all sent messages - in fact, a list of EDR records. Use the filter at the top of the page to display the required messages. The *Select tags* filter allows display and export of EDRs whose telephone numbers are included in the tag (see also the [Alaris YouTube](#) video).

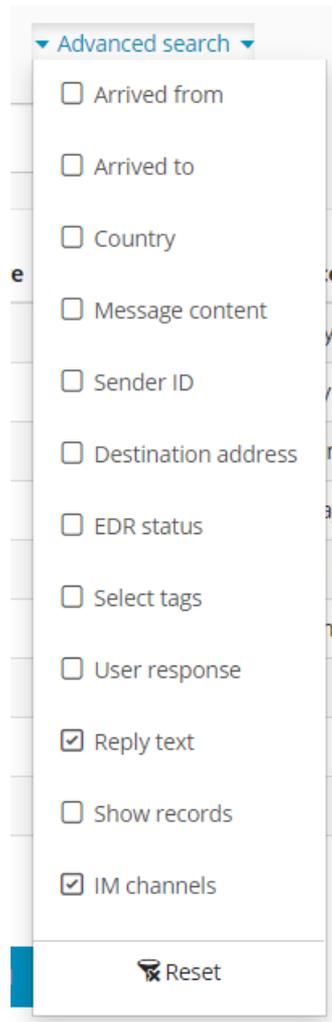


Sent date	EDR status	Sender	Recipient	Campaign	Package	Message content	Message ID	User response	IM channels	Source message sent time	Source message ID
08/24/2020 10:21AM	SENT	79038565674	1441590	mo_reply	-	sure!	test35de-20200824072105841967-1b9fbb		sms	2020.08.24 07:06:25	test35de-20200824070625572252-13eaaa
08/24/2020 10:06AM	DELIVRD	79038565674	1441590	mo_reply	-	Do you want peace or peas?	test35de-20200824070625572252-13eaaa	Peas, please	sms		
08/23/2020 5:59PM	DELIVRD	79038565674	1441590	telegram_test	-	does Telegram work?	test35de-20200823145944173495-7b9a9e		Telegram		
08/23/2020 5:54PM	DELIVRD	79038565674	1441590	one number test	-	and now?	test35de-20200823145429167301-8309e5		Skype		

Statistics

Use the  control at the top left to select the columns for display.

Use the *Advanced* search drop-down list to set additional filters.



Advanced search

- Arrived from
- Arrived to
- Country
- Message content
- Sender ID
- Destination address
- EDR status
- Select tags
- User response
- Reply text
- Show records
- IM channels

Reset

Advanced filters

The following filters may come handy when searching for subscriber responses to MO messages:

- *Reply text*: serves to filter messages by the reply of the Campaign Portal to user responses
- *Show records*: allows displaying outgoing messages, all messages or replies only. If the value *Outgoing messages* or *All messages* is selected, the *Source message sent time* and *Source message ID* columns appear in the table. They allow linking the response and the source message (the *Send date* of the source message will correspond to the *Source message sent time* of the response, and the *Message ID* of the source message will be identical to the *Source message ID* of the response).

Click [Export stats](#) to export the records displayed in the table. Use the drop-down list next to the [Export stats](#) button to select the format of the exported file (CSV or Excel). The file will be downloaded in a .zip archive. Click [Show export tasks](#) to view the export tasks and download the export results. Hover over a value in the *Statistics period* column to view the task details in a popup tip.

 Show export tasks

Start time	Statistics period	
2017.09.11 11:23:27	2017.07.28 00:00:00 — 2017.09.11 00:00:00	 Download
2017.09.11 11:22:52	2017.07.28 00:00:00 — 2017.09.11 00:00:00	 Download
2017.08.14 18:56:56	2017.06.30 — 2017.08.14	 Download

 Refresh
 Close

Show export tasks

14.5 Contacts

The *Contacts* page serves to create and edit message recipients and organize them into groups by assigning tags to them.

Contacts

 Upload contact list
 Download

 Create single contact
 Delete contacts by tag
All contacts

Tags

Sort by na ▼

Search 

Short tag names

Add new tag

Reset

Fairy guys (3)

Secret servic...

Contacts

Mobile number	First name	Last name	Tags	Comments	
Filter...	Filter...	Filter...	Filter...	Filter...	
1234545	Peter	Pan	Fairy guys Secret service	UK	   
79201234567	Sherlock	Holmes	Fairy guys	Russia	   
1234567890	Nowhere	Man	Fairy guys	Neverland	   

Contacts

The rightmost table column contains the following controls:

- The  button opens the contact's details window and allows editing the contact
- The  button serves to exclude the contact from mailouts. See [Alaris Campaign Portal\Blacklist](#) for more detail. Once the contact is blacklisted, the button changes to 
- *Remove* contains the  button that serves to delete the record
- The  button serves to download the contact

To add a new contact, click [+ Create single contact](#). Fill the appropriate fields in the *Add contact* dialog that appears. Assign one or several tags to the contact by clicking on them. Add a new tag if necessary. Click [Save Contact](#).

 Add contact

Lena	Stogova
------	---------

	79107925130
---	-------------

Anyone born in the USSR knows her.

Tags

Sort by creation date, desc 

Search tag 

Short tag names

[+ Add new tag](#)

[Reset](#)

350001 (8) [Secret servic...](#) Fairy guys (4)

Cancel	Download	Save contact
--------	--------------------------	------------------------------

Add contact dialog

Alternatively, load one or multiple contacts from a MS Excel file by clicking [+ Upload contacts list](#).

 Upload contact list

Contacts.xlsx

1 How would you like to arrange and merge your contacts?

Phone	First name	Last name	Comments
Number	Name	Last name	Country
1234545	Peter	Pan	UK
79201234567	Sherlock	Holmes	Russia
1234567890	Nowhere	Man	Neverland

Ignore duplicates

2 Create a new tag and/or choose from existing ones

Tags

Sort by creation date, desc

Search tag

 Short tag names

Add new tag

Reset

350001 (8)

Secret servic...

Fairy guys (4)

Cancel

Import

Upload contacts list

The file must contain at least one column with phone numbers. In the *Upload contacts list* dialog that appears select or create the tags for the contact(s), configure the column headers as appropriate.

NOTE: If the original file contains names that coincide with System columns, the columns will be assigned automatically. This allows simplifying import configuration.

In the *Merge type* list select the way duplicates must be handled. Possible options are:

- *Ignore duplicates*
- *Update number tags only*
- *Update tags and contact data*

- *Add duplicates*

NOTE: For better user experience, the *Merge type* parameter displays the value that was selected during the previous upload. This allows for more convenient and quick upload of contacts from multiple files.

Click **Import**.

Click the button  next to **Upload contacts list** for a list of contact import tasks.

"Upload contact list" tasks

Launch time	Status	Imported successfully	Existing contacts with updated tags	Duplicate contacts	Skipped
2020.08.25 16:10:48	Completed	0	0	3	4
2020.08.25 15:36:51	Completed	8	0	0	0
2020.08.24 17:05:51	Completed	3	0	0	1

Close

 Refresh

Contact import tasks

Click  **Delete contacts by tag** to remove contacts associated with a specific tag. Contacts with several tags will not be removed.

To filter contacts by tag click on the tag name on top of the contacts table. To remove the filter, click

 **Reset**.



Editing tags

To edit a tag, hover over it and click  that appears. Edit the name and click **Save** to save the changes. To remove a tag, click  on top of the tag as illustrated above.

NOTE: A tag cannot be removed if it has contacts associated with it. To remove a tag, delete the contacts first.

Additionally, contacts can be transferred from one tag to another using drag&drop (a warning about contact merging will appear).

14.6 Blacklist

The *Blacklist* page serves to block SMS sending to numbers included in the list.

Blacklist
+ Add
↑ Import
✕ Delete selected

<input type="checkbox"/>	Dest. Address	
<input type="checkbox"/>	1234545	✕
<input type="checkbox"/>	31651571347	✕
<input checked="" type="checkbox"/>	79201234567	✕
<input type="checkbox"/>	89990001	✕

Blacklist

Click + Add to add a number to the list, or ↑ Import to import one or several numbers from a MS Excel file. The file must contain a single column with destination numbers.

To remove a record from the table, click ✕. To remove multiple records, select them and click ✕ Delete selected. See also the [Alaris YouTube video](#).

14.7 Templates

The *Template* page allows creating templates for message text, sender IDs, notification emails and MO reply templates. Templates can be used multiple times, saving the user's time in creating campaigns.

Templates
+

- Content
- Senders
- Notification emails
- MO reply templates

Your content templates

Sort by name, asc ▼

Peace for all ▼

Add content template

Template name

Peas for all

Message content

%from%Dear %first_name%, may peas be with you.

Encoding	SMS parts	Chars used	Per SMS
7bit	1	47	160

Note that number of symbols and data coding may be changed when issuing campaigns in case markers are used.

Add markers (optional) ▼ ?

Save
Delete
Cancel

IM message

Dear %first_name%, may peas be with you.

The fields below can be used for sending promotional messages through Viber (or possibly other messengers). If there's a fallback to SMS then they are ignored.

Image URL

http://image.org/src/image_a.jpg

Button caption

http://image.org/src/image_b.jpg

Button action URL

http://image.org/src/image_c.jpg

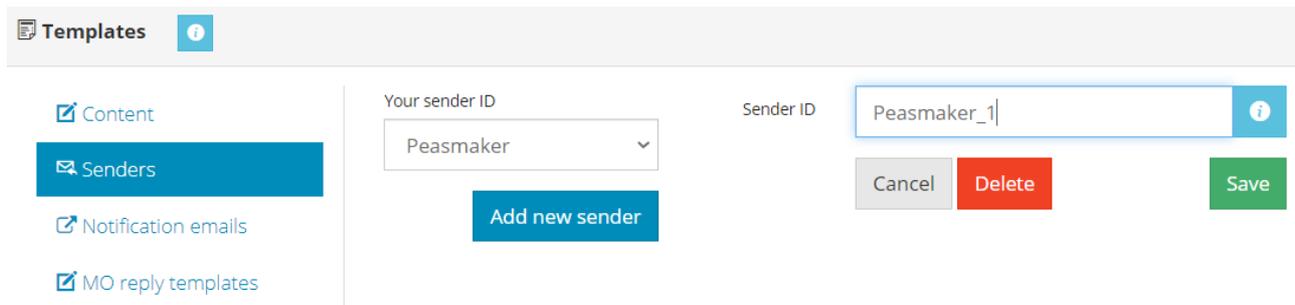
Content template

Content templates.

To create a content template, select *Content* and click **Add Content Template**. In the edit section in the right part of the page, supply the template name and message content. Markers can be used to personalize the message (the *Add markers* drop-down list). The marker values are substituted to the message from the [Alaris Campaign Portal\Contacts](#) page. The user can also create custom markers in the [Administration\Custom fields](#) tab. Supply the following parameters related to IM messages:

- *IM message*: IM message text. Fill in the value if you wish to send the message through IM channels
- *Image URL* (specific for Viber messages (*promotion* type)): the link to an image sent in the message
- *Button caption* (specific for Viber messages (*promotion* type)): the link to a button sent in the message
- *Button action URL* (specific for Viber messages (*promotion* type)): URL opened when clicking the button sent in *Button caption*

Click **Save** to save the template.



Senders

Senders.

To create a list of sender IDs, select *Senders* and click **Add New Sender**. In the edit section in the right part of the page, enter the sender ID and click **Save**. To remove a sender ID, select it in *Your sender name* list and click **Delete**.

Notification emails.

The *Notification emails* tab serves to create groups of emails that receive notifications about a campaign. The user provides a list of comma-separated emails that can then be selected in Step 4 of campaign creation (see [Alaris Campaign Portal \(Retail portal\)\Campaigns](#)).

Templates ⓘ

- Content
- Senders
- Notification emails**
- MO reply templates

Notification emails

Sort by name, asc

PeasPeace

Add list

Email list name: PeasPeace

Email list: peasmaker@peas.com, peacemaker@peace.com

Cancel Delete ⓘ Save

Notification emails

MO reply templates. MO replies are automatic responses to MO messages that were received in response to a campaign. To use the feature, configure MO reply templates as detailed below.

Templates ⓘ

- Content
- Senders
- Notification emails
- MO reply templates**

Your reply template

Sort by name, asc

Peas

Add reply template

Keywords	Type of keyword expression	MO reply templates	Priority	
both	String	both	3	+
peas	string	peas	2	✎ ✖
no peas	string	no peas	1	✎ ✖

MO reply templates

- a. To create a template, click **Add reply template**. In the *Reply template name* field

Reply template name

Peas

Save Cancel

enter the template name and click **Save**.

Keywords	Type of keyword expression	MO reply templates	Priority	
both	String	both	3	+
peas	string	peas	2	✎ ✖
no peas	string	no peas	1	✎ ✖

Adding a new template

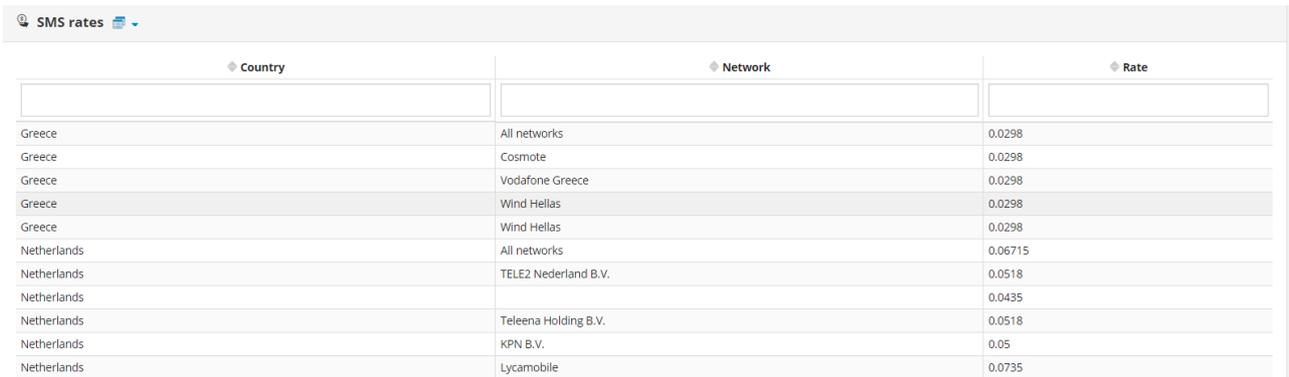
- b. In the table that appears, configure the following parameters of the template:
- *Keywords* - allows setting several templates for each Keyword+User reply pair
 - *Type of keyword expression* (string or regular expression)
 - *MO reply templates* - reply templates to the user's response
 - *Priority* - the order in which MO message keywords must be checked (from higher to lower priority, or, if priorities are equal, from a higher to a lower ID).

Once the Campaign Portal receives a MO response from the end user, it compares the response text to the template from the *Keywords* field, and if a match is found, it sends the user the appropriate text from the *MO reply templates* field. An EDR is written for each response, and the responses are billed.

NOTE: Templates can also be configured at Step 3 of campaign creation (see [Alaris Campaign Portal\Campaigns](#) ³⁸⁷).

14.8 SMS rates

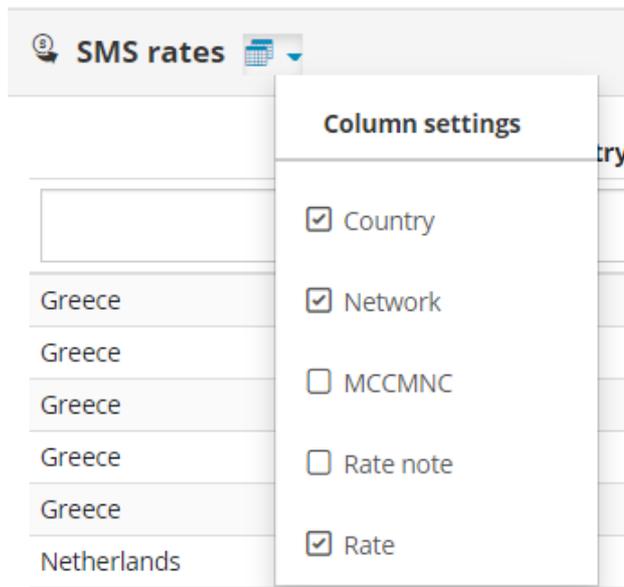
The *SMS rates* page shows all rates available to the user. It is only available if the user is subscribed to a rate plan and the user has the *Show rates tab* permission (if not, the *SMS rates* menu item is hidden). The table of rates contains filters that allow locating specific rates.



Country	Network	Rate
Greece	All networks	0.0298
Greece	Cosmote	0.0298
Greece	Vodafone Greece	0.0298
Greece	Wind Hellas	0.0298
Greece	Wind Hellas	0.0298
Netherlands	All networks	0.06715
Netherlands	TELE2 Nederland B.V.	0.0518
Netherlands		0.0435
Netherlands	Teleena Holding B.V.	0.0518
Netherlands	KPN B.V.	0.05
Netherlands	Lycamobile	0.0735

SMS rates

By default, the table contains the columns *Country*, *Network* and *Rate*. The user can customize column display by clicking on the  control next to the table header. The customized column display is saved by the browser.



Customizing column display

The same page can be accessed by clicking the [Plan Details](#) button in the [Purchase](#) ⁴⁰⁷ page.

14.9 Purchase

The *Purchase* page serves to view the rate plan details, top up the balance and purchase SMS packages.

Purchase
Show previous orders
Top up your balance

Premium	Apply plan Plan Details
Premium	Apply plan Plan Details
WholeSale	Apply plan Plan Details

SMS packages

Order by:
 Country:
 Min. SMS volume:
 Cost interval:
 Exclude packs with fixed message text

Pack name:
 Recipient:

<p>Caribbean Islands</p> <p>100 SMS</p> <p>0.1000 EUR Per SMS</p> <p>10 EUR</p> <p>Activate</p>	<p>Russia for EUR 100</p> <p>100000 SMS</p> <p>0.0010 EUR Per SMS</p> <p>100 EUR</p> <p>Activate</p>
--	---

Purchase

After the first logon to the system, the user must choose and apply the rate plans. They are displayed in the *Available rate plans* table.

NOTE: Rate plans correspond to the products of the *System owner* carrier in the main System interface (see [Carriers\Products](#)^[103]). The *Available rate plans* table only displays rate plans with the same account currency as the user record. For example, if during registration, the user specified USD as the account currency, only USD products will be displayed as available rate plans. To add a product with another currency, go to the main interface, find the carrier in the [Carriers\Carriers](#)^[99] section (enter the company name in the *Carrier name* filter), and create a new account for this carrier with the required currency.

To view the rate plan details, click Plan Details. To apply a rate plan, click Apply plan.

NOTE: The rate plan is applied only once and cannot be changed in the future.

To top up the balance, click [Top up your balance](#). In the dialog that appears, select the currency, enter the amount and click the *Pay* button (in this example, [Pay 100.00 EUR](#)).

Top up your balance

Currency

Amount

Minimum amount: 5

Top up your balance

Select the payment system and click [Submit Order](#).

Payment method:

-  Checkout with **Paypal**
-  Checkout with **Authorize.net**
-  Checkout with **PayOnline**
-  Checkout with **PayU**
-  Checkout with **Stripe**
-  Checkout with **SecureTrading**

Select payment method

NOTE: Prior to accepting payments, an account must be registered at the respective payment system and configured in [Administration\System settings\Partner portal](#)^[5]. The user must have the respective roles enabled (*Authorize, Payonline, Paypal etc.*) in [Administration\Users](#)^[9].

To purchase an SMS package, click *Activate* at the bottom of the appropriate package. If necessary, use filters to locate a suitable package. If any credit is required for the purchase, the *Activate using credit* button is shown instead of *Activate*. If the user's balance is too low to make the purchase, a warning message appears.

NOTE: Packs are by default sorted by price. It is possible to hide the cost per message in a pack. To enable it, contact the Alaris technical support team and communicate the code BZ33001.

Europe

1000 SMS
0.1000 EUR Per SMS

100 EUR (+ VAT 35.00 EUR)

European SMS pack

Activate

Activating a package

Confirm your choice in the dialog that appears.

Click [Show previous orders](#) to view the history of your purchases and subscriptions. The window contains two tabs - *Order history* and *Your subscriptions*.

Show previous orders

 Order history  Your subscriptions 

Order date	Total	Order ID
09/25/2019 12:00AM	EUR 100	12345
09/25/2019 12:00AM	EUR 10000	201909250525#10095

OK

Order history

Your subscriptions tab sheet is a table of the user's SMS packs, including fully consumed ones. The data is sorted by the *Purchase date* column.

 Show previous orders

 Order history 		 Your subscriptions 	
SMS package	Description	SMS available	Purchase date
Caribbean Islands		100/100	09/25/2019 8:43AM
Russia for EUR 100		100000/100000	09/25/2019 8:28AM
Caribbean Islands		100/100	09/25/2019 8:28AM

OK

Subscriptions

14.10 Invoices

The *Invoices* page contains invoice details and allows downloading invoices. It is displayed to users having the *Show finance info* permission configured in [Administration\Users](#)^[9].

Invoices 

Start date:  End date:  Show invoices

REF. #	START DATE	END DATE	AMOUNT	DUE DATE	PAYMENT STATUS	
AL_0004159_1003557	03/11/2019	03/18/2019	100	03/25/2019	Overdue	
AL_0004165_Floor	03/18/2019	03/19/2019	5	-	Payment expected	
AL_0004212_1122331	03/28/2019	03/29/2019	100	-	Payment expected	
AL_0004213_1122331	03/28/2019	03/29/2019	5000	-	Payment expected	
AL_0004211_78	03/29/2019	03/30/2019	2500	-	Payment expected	

Invoices

In the *Start date* and *End date* fields specify the period for which invoices must be shown, and click Show invoices. To download an invoice, click  Download. See also the [Alaris YouTube](#) video.

14.11 API connections

The *API connections* page contains two tab sheets: *API connections* and *Tokens*. *API connections* enables sending SMS messages from external applications and websites. The page serves to configure parameters for connection to such third-party servers. The *Tokens* tab serves to generate tokens with a custom lifetime.

API connections ?

API connections | Tokens

Connection name	IP address	User name	Password	Currency	
SuperServer	195.1.0.1	NBFGP866	900qhGxB	USD	

[Add connection](#)

API connections tab

The *API connections* tab contains a table of configured connections. To create a new connection, click [Add](#), specify the connection name, IP address (or mask) of the third-party server and currency, and click [Save Connection](#).

NOTE: When using the mask, replace one or several octets with an asterisk (*). For example, 192.168.1.* matches any IP address starting with 192.168.1.

Add connection

Connection name:

IP address:

Currency:

Add connection

The new record will appear in the table, with an assigned user name and password. Insert the user name and password in the HTTP template and communicate it to the web programmers of the third-party application.

The HTTP template is as follows:

```
<portal_url>/rest/send_sms?  
from=<ani>&to=<dnis>&message=<message>&username=<username>&password=<password>
```

where **username** and **password** are the credentials provided by the System; **ani** is the originator address; **dnis** is the destination number; **message** is the message text. For any additional information contact the Alaris technical support team.

The *Tokens* tab serves to create tokens with the lifetime defined by the user. A token is an identifier of a user session that is automatically created when the user authorizes in the portal. The standard lifetime of a token is two hours. In this tab, the user can configure a different lifetime.

API connections ?

API connections Tokens

Expire date	Account ID	IP address	Token
2020.08.30 12:02:51	10997	1.3.5.19	eyJhbGciOiJIUzI1NiJ9.eyJhY2MIOiI0xMDk5NyIsImNhclic6iMyMjclCjpcCi6iEuMy41LjE5IiwibG
2020.08.28 12:03:08	18437	2.5.7.99	eyJhbGciOiJIUzI1NiJ9.eyJhY2MIOiIxODQzNyIsImNhclic6iMyMjclCjpcCi6iUjU4NS43LjK5IiwibG

Get Token Refresh

Tokens tab

To generate a new token, click **Get Token**. In the edit fields specify the token lifetime (in days, from 0.000694 (1 minute) to 365 (1 year)), the user IP address and click **Get Token** in the *Expire date* column. The new token will appear in the table.

NOTE: To link the token to any IP address specify the IP address 0.0.0.0/0.

API connections ?

API connections Tokens

Expire date	Account ID	IP address	Token
<input type="text" value="2"/>	10997 (USD) ▼	<input type="text" value="192.168.1.1"/>	Get Token Cancel
2020.08.30 12:02:51	10997	1.3.5.19	eyJhbGciOiJIUzI1NiJ9.eyJhY2MI
2020.08.28 12:03:08	18437	2.5.7.99	eyJhbGciOiJIUzI1NiJ9.eyJhY2MI

Get Token Refresh

Generating a token

NOTE: Tokens with an arbitrary lifetime can also be created by the REST API method GET:auth by setting the optional parameter lifetime (in days). The minimum value is 0.000694 (1 minute), the maximum value is 365 (1 year).

14.12 Account settings

The *Account settings* page contains three tab sheets: *Account information*, *Order history* and *Subscriptions*. Click on the language icon at the top of the page to select the interface language.

Profile information

First name	Tatiana
Last name	Pancakes
Company name	Ka-18-client
Address	
Your timezone	GMT+3
Country	
Long message split mode	Cut (trim message text accordingly to GSM spec)

Edit

Reset password

Login information

Email	tatiana+1@alarislabs.com
Expire date	2118.12.03 00:00:00

MO callback

Cancel

Set up callback link

To enable delivering MO messages via HTTP API to your service, you need to set the link up using this interface. There you need to put a URL that can contain the following markers:

\$ani\$ - sender ID
\$dnis\$ - destination address
\$message\$ - message text

Account settings

The *Account information* tab sheet displays the following sections:

- *Profile information* (click **Edit** to update the profile and **Reset Password** to change the password)
- *Long message split mode*: the parameter defines how long messages are treated. The same parameter is configured in [Alaris Campaign Portal\Campaigns](#)^[387]. By default, when a campaign is re-launched, the value from the previous launch is used. If the parameter was not specified in the campaign settings, the System uses the one from the account settings. Otherwise, the value from [Administration\System settings\Partner portal](#)^[57] is used. The drop-down list contains the following values:
 - *Cut (trim message text according to GSM spec)*
 - *Payload (send SMPP message with text in message_payload field)*
 - *Split (split message into several with UDH)*
 - *Split (using SAR TLV fields)*. See also the [Alaris YouTube video](#)
- *Login information*
- *MO callback*: serves to set the MO push URL template (which can also be configured in the *MO push URL template* field in [Carriers\SMS channels](#)^[120] of the main System interface). Several URL links can be displayed if multiple SMS channels are associated with a carrier, each having a separate link. However, if the user changes the format through Alaris Campaign Portal, all channels will get the same link. See also the [Alaris YouTube video](#)

14.13 Administration

The *Administration* page contains two tabs: *Users and permissions* that serves for viewing, editing and adding new users and *Custom fields* that allows creating new fields and markers which can be further used when creating contacts.

NOTE: This page is available if the user has the permission *Client portal user administration* granted in [Administration\Users](#)^[97].

 **Administration** 

Users and permissions Custom fields

User name	First name	Last name	
tatiana@gmail.com	Tatiana	B	 
mouse	Mouse	Cat	 



Users and permissions tab

To edit a user record, open the *Users and permissions* tab and click  next to the record. Edit the user properties in the panel that appears in the right section of the page.

User name <input type="text" value="Poco"/>	<input checked="" type="radio"/> Partner portal <input checked="" type="radio"/> Partner portal user administration <input checked="" type="radio"/> Show purchase tab <input checked="" type="radio"/> Show packs <input checked="" type="radio"/> Show rates tab <input checked="" type="radio"/> Show balance <input checked="" type="radio"/> Show finance info <input checked="" type="radio"/> Show message content <input checked="" type="radio"/> Show graphs <input checked="" type="radio"/> Campaign Portal <input checked="" type="radio"/> Wholesale partner portal <input checked="" type="radio"/> Export CDRs/EDRs
Email <input type="text" value="poco@gioco.com"/>	
First name <input type="text" value="Poco"/>	
Middle name <input type="text"/>	
Last name <input type="text" value="Gioco"/>	
Phone number <input type="text"/>	
Position <input type="text" value="CEO"/>	
<input checked="" type="checkbox"/> Active	
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	
<input type="button" value="Reset password"/>	

Edit user

The panel allows editing the user permissions both for Alaris Campaign Portal and the [Wholesale portal](#)^[372]. The same permissions can also be configured in the [Administration\Users](#)^[97] section). The following are available:

- *Partner portal*: defines permissions for users having access to the [Wholesale portal](#)^[372] and Alaris Campaign Portal.
 - *Partner portal user administration*: when granted, the *Administration* page appears in the [Alaris Campaign Portal](#)^[380] interface. It provides a list of all existing users that are registered under the partner
 - *Show purchase tab*: the permission affects whether the user can view the *Purchase* and *Invoices* tabs of Alaris Campaign Portal and *Invoices* and *Payments* tabs of the Wholesale portal. The *Invoices* tab contains confirmed invoices of the user's carrier - downloading them will be allowed if the permission is granted
 - *Show packs*: defines whether SMS packs available for subscribing will be shown on the *Purchase* tab in Alaris Campaign Portal
 - *Show rates tab*: defines whether non-applied rate plans will be shown. Additionally, the permission hides *Plan details* of the applied rate plan (*Purchase* tab) in Alaris Campaign

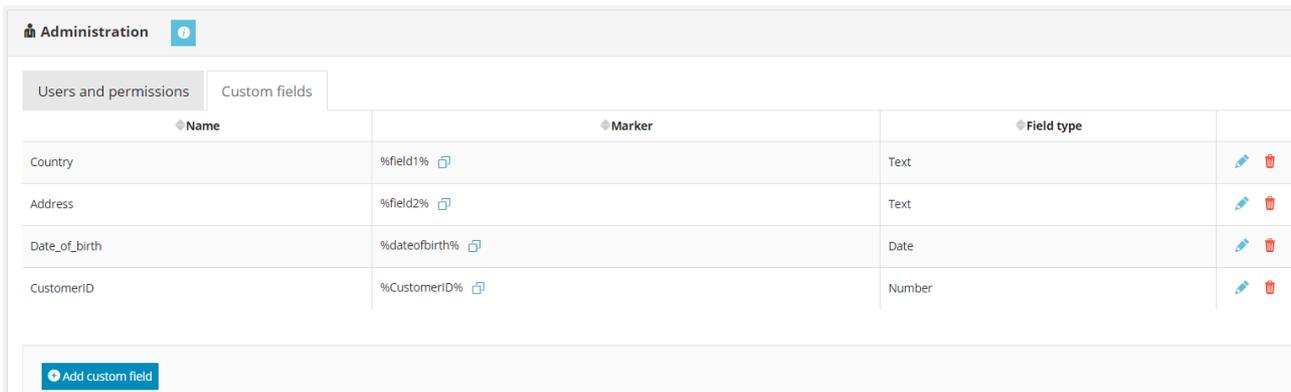
Portal. In case the permission is disabled, the *Rates* tab is hidden from the [Wholesale portal](#)^[372]

- *Show balance*: defines whether balance should be shown in Alaris Campaign Portal (*Dashboard* and *Purchase* tabs, and the main menu) as well as the *Top up your balance* button on the *Purchase* tab. See also the [Alaris YouTube video](#)
- *Show finance info*: when granted, it allows Alaris Campaign Portal users to view financial data such as balance, campaign cost, rates and credit limit. Learn more in the [Alaris YouTube video](#)
- *Show message content*: serves to control the REST API method GET sms_edr. When a user with the disabled permission calls this method, message content is hidden in the output
- *Show graphs*: when disabled, no charts are displayed on the [Dashboard](#)^[383] page of Alaris Campaign Portal. Also see the [Alaris YouTube video](#)
- *Campaign Portal partner portal*: grants access to Alaris Campaign Portal
- *Wholesale partner portal*: grants access to the [Wholesale portal](#)^[372]
 - *Export CDRs/EDRs*: when disabled, the export menu will be hidden from the Wholesale portal interface

Click [Save](#) to save the changes. To reset the user's password, click [Reset Password](#).

To create a user, click [Create user](#) and configure the appropriate parameters. The new user will receive an activation email with the link to set the password.

The *Custom fields* tab contains a table of custom fields and markers that can be further used when creating contacts and then inserted in the text of campaigns and templates.



Name	Marker	Field type	
Country	%field1%	Text	Edit Delete
Address	%field2%	Text	Edit Delete
Date_of_birth	%dateofbirth%	Date	Edit Delete
CustomerID	%CustomerID%	Number	Edit Delete

[Add custom field](#)

Custom fields tab

To add a new custom field, click [Add custom field](#).

Administration ?

Users and permissions Custom fields

Name	Marker	Field type	
Country	%field1%	Text	 
Address	%field2%	Text	 
Date_of_birth	%dateofbirth%	Date	 
CustomerID	%CustomerID%	Number	 
Hometown	<input type="text" value="hometown"/>	Text	  Save Cancel

[Add custom field](#)

Adding a new custom field

In the fields that appear, supply the values:

- *Marker name*: the name that will appear in the drop-down lists in the [Campaigns](#) and [Templates](#) pages
- *Marker*: the marker value. After saving the value will be automatically enclosed in the per cent symbols, for example, %date_of_birth%

NOTE: The maximum length of either field is 20 symbols. The supported characters are digits, Latin characters and the underscore symbol.

- *Field type*. Possible values are *Text*, *Number* and *Date*.

Click **Save** to save the changes. The new field will appear in the table.

Once the custom field is added, it appears when creating and importing contacts as shown in the figure below.

 Add contact

Anna	Banana
 79101234567	
Nowhereland	
Don't talk to her	

Tags

Sort by creation date, desc 

Search tag 

Short tag names

 Add new tag

 Reset

Fairy Guys (3) **Russia (22)** 350001 (8)

Cancel  Download **Save contact**

Custom fields in the 'Add contact' dialog

The custom fields can then be used as markers in SMS campaigns (in the [Campaigns](#) ^[387] page). They will be replaced with appropriate values.

Template name

Peas to all

Message content

Dear %first_name%,
May peas be with you!

Yours,
Peasmaker

Encoding	SMS parts	Chars used	Per SMS
7bit	1	60	160

Note that number of symbols and data coding may be changed when issuing campaigns in case markers are used.

Add markers (optional) 

- From
- To
- First name
- Last name
- Comments
- Hometown 



Adding a custom field to the campaign text

Similarly, custom fields can be inserted into the text template in the [Templates](#) ⁴⁰³ page.

Custom fields are associated with a specific partner and are not shared between other portal users. Each user can create their own custom fields and markers. See also the [Alaris YouTube](#) video.

15 Appendix 1. HTTP API

15.1 Overview

This section provides the HTTP API description for integration of external systems with Alaris SMS platform.

HTTP API enables SMS submission and SMS delivery status requests.

Authentication information (login/password) for connecting to Alaris SMS platform must be requested from the owner of Alaris SMS platform for each new interconnection. Credentials must be sent with each API request otherwise the user will be rejected as non-authorized.

Requests can be sent either with the GET or POST method to URL provided by the System owner in the format:

http(s)://<IP_address>:<port>/api? (e.g. https://1.1.1.1:8443/api? or http://1.1.1.1:443/api?)

15.2 SMS submission

Request format:

[http://1.1.1.1:8001/api?
username=<username>&password=<password>&ani=<ani>&dnis=<dnis>&message=<message>&com
mand=submit&serviceType=<serviceType>&=<longMessageMode>](http://1.1.1.1:8001/api?username=<username>&password=<password>&ani=<ani>&dnis=<dnis>&message=<message>&command=submit&serviceType=<serviceType>&=<longMessageMode>)

[https://1.1.1.1:8002/api?
username=<username>&password=<password>&ani=<ani>&dnis=<dnis>&message=<message>&com
mand=submit&serviceType=<serviceType>&longMessageMode=<longMessageMode>](https://1.1.1.1:8002/api?username=<username>&password=<password>&ani=<ani>&dnis=<dnis>&message=<message>&command=submit&serviceType=<serviceType>&longMessageMode=<longMessageMode>)

NOTE: To send multiple SMS messages, add several comma-separated DNIS to the <dnis> field.

Parameter	Value	Required	Notes
username:	Login	Yes	used when command = "submit", "query" or "mo"
password:	Password	Yes	used when command = "submit", "query" or "mo"
ani:	Caller ID. Technical limitation - alpha-numeric up to 32 symbols. Additional limitations can be caused by destination route peculiarities	Yes	used when command = "submit" or "mo"
dnis:	Destination number. Must be sent in international E.164 format (up to 15 digits allowed)	Yes	used when command = "submit" or "mo"

Parameter	Value	Required	Notes
message:	Message text.	Yes	used when command = "submit" or "mo"
messageId:	Message ID	No	used when command = "query"
command:	Request type. Possible values: "submit", "query", "mo"	No	
serviceType:	Service type, provided by the system owner for the registered interconnection. Can be blank.	No	used when command = "submit" or "mo"
longMessage Mode:	<p>Type of long message processing. The following values allowed:</p> <p>cut (trim message text to 140 bytes) - shortens the message leaving only first 140 bytes to be sent.</p> <p>split and split_sar - split the message according to the logics described below. The difference between them is in the header to be used, for split it is UDH header, for split_sar it is sar accordingly.</p> <p>payload - message_payload field is used for sending the message text</p> <p>The splitting (options 2/3) depends on the coding:</p> <ul style="list-style-type: none"> - dataCoding = 0, 1 or 3: one message can contain up to 160 bytes, if more – segment count = message length / 153 - dataCoding 2, 4 - 8: one message can contain up to 140 bytes, if more – segment count = message length / 134 bytes 	No	<p>used when command = "submit" or "mo"</p> <p>the default value is "cut"</p>
srcTon, srcNpi, dstTon, dstNpi	the respective parameters for ANI and DNIS. Format: integer. Optional	No	used when command = "submit"

Parameter	Value	Required	Notes
dataCoding	<p>data coding scheme for sending the SMPP to the client. Format: integer. Optional. Allowed values are: 0, 1, 3, 6, 7, 8, 10, 14, where:</p> <p><i>0: SMSC Default Alphabet (SMPP 3.4)/MC Specific (SMPP 5.0)</i></p> <p><i>1: IA5 (CCITT T.50)/ASCII (ANSI X3.4)</i></p> <p><i>3: Latin 1 (ISO-8859-1)</i></p> <p><i>6: Cyrillic (ISO-8859-5)</i></p> <p><i>7: Latin/Hebrew (ISO-8859-8)</i></p> <p><i>8: UCS2 (ISO/IEC-10646)</i></p> <p><i>10: ISO-2022-JP (Music Codes)</i></p> <p><i>14: KS C 5601</i></p>	No	used when command = "submit"
esmClass	<p>corresponds to the same name parameter in SMPP. Format: integer. Optional. Allowed values are: 0-255</p>	No	used when command = "submit"
priorityFlag	<p>corresponds to the same name parameter in SMPP. Format: integer. Optional. Allowed values are: 0 and 1</p>	No	used when command = "submit"
registeredDelivery	<p>corresponds to the same name parameter in SMPP. Format: integer. Optional. Allowed values are: 0 and 1</p>	No	used when command = "submit"
replaceIfPresentFlag	<p>corresponds to the same name parameter in SMPP. Format: integer. Optional. Allowed values are: 0 and 1</p>	No	used when command = "submit"
silent	<p>Flag that allows sending silent SMS (message that arrives with no sound and is not displayed on the screen)</p>	No	Whether the silent SMS arrives as a silent one to the end user depends on the vendor and the other carriers that handle it

Parameter	Value	Required	Notes
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Allowed values are: 0 and 1, where 0 means NOT silent. Any value other than 1 is treated as true, for example, silent=false is interpreted as silent=1.

Response format

In case of successful processing, the status in the header of the HTTP response is 200 OK. Response body contains the message_id.

Sample of a response in JSON format:

```
HTTP/1.1 200 OK
Content-Type: text/html; charset=UTF-8

{"message_id": "a1ss-a1b2c3d4-e5f67890"}
```

In case

- 1) the request contains more than one DNIS (comma-separated)
- 2) the `longMessageMode=split/split_sar` and the message is longer than 160/70 byte (GSM/Unicode respectively),

the response will look as follows:

```
HTTP/1.1 200 OK
Content-Type: text/html; charset=UTF-8

[{"dnis": "791003044222", "message_id": "5b4c46a8-8dc9-44b4-f55f-3bef56819305", "segment_num": "1"}, {"dnis": "791003044222", "message_id": "5b4c46a8-46bc-7ee6-4a16-7d4e5a0d14af", "segment_num": "2"}]
```

In case of rejected SMS (for example, no compatible routes found), the HTTP response status is - **400 Bad Request**. The response body contains a string describing the reason for rejection, for example **NO ROUTES**.

```
HTTP/1.1 400 Bad Request
Content-Type: text/html; charset=UTF-8

NO ROUTES
```

In case an incorrect user name or password is provided, the HTTP status is **401 Unauthorized**. The response body contains the string describing the reason for rejection.

```
HTTP/1.1 401 Unauthorized
Content-Type: text/html; charset=UTF-8

not authorized (check login and password)
```

15.3 SMS status request

Request format:

<http://1.1.1.1:8001/api?username=<username>&password=<password>&messageId=<messageId>&command=query>

<https://1.1.1.1:8002/api?username=<username>&password=<password>&messageld=<messageld>&command=query>

Parameters:

username:	Login
password:	Password
messageld:	Message identifier received with the submission response
command:	Request type. Must be set to “query” value

All parameters are obligatory.

Response format:

In case of successful processing, the status in the header of the HTTP response is 200 OK. The response body contains the one of the following possible values:

ENROUTE:	Message is in routing stage
SENT:	Message is delivered to the SMSC
DELIVRD:	Message is delivered to the Subscriber
EXPIRED:	Message storage period expired
DELETED:	Message was deleted
UNDELIV:	Message cannot be delivered
ACCEPTD:	Message is accepted by SMSC
UNKNOWN:	Unknown message status
REJECTD:	Message was rejected by SMSc

Response sample:

```
HTTP/1.1 200 OK
Content-Type: text/html; charset=UTF-8
{"status": "DELIVRD", "delivery_time": "1807161404", "mccmnc": "250002"}
```

where **delivery_time** is the *done date* received from the vendor (if not received the field will be empty), **mccmnc** is the E212 code

The status can be requested within 48 hours after the message submission.

In case the message with the requested message ID is not found the response HTTP status is 200 OK. The response body contains the error description in the “status” field:

```
HTTP/1.1 200 OK
Content-Type: text/html; charset=UTF-8

{"status": "UNKNOWN", "delivery_time": "", "mccmnc": ""}
```

In case an incorrect user name or password is provided, the HTTP status is 401 Unauthorized. The response body contains the string describing the reason for rejection.

```
HTTP/1.1 401 Unauthorized
Content-Type: text/html; charset=UTF-8

not authorized (check login and password)
```

15.4 Allowed marker names for outgoing HTTP requests

This section contains allowed marker names for outgoing HTTP requests (sending of delivery report and MO SMS with the help of cURL in a generated script).

Deliver

Parameter	Description	Format	Allowed values
ani	ANI	string	
app_msg_id	identifier of the submit that was sent to the client in the submit_sm_resp or HTTP response	string	
clientChannelId	vendor channel ID that was used to receive the deliver_sm	integer	
delivery_status	delivery status based on outgoing translations for the client side	string	
delivery_time	time when the delivery report was generated by the switch	string	Date format: YYMMDDHHMMSS
dnis	DNIS	string	

Parameter	Description	Format	Allowed values
done_date	time value from the "done date:" field of the delivery report received from the vendor	string	Date format: YYMMDDHHMMSS. Depending on the date format in the source delivery report, the SS may be 00. Example: 2019-11-12Z08:06:18
done_date_t	the same as done_date marker but with replacing the Z delimiter by T	string	Example: 2019-11-12T08:06:18
im_channel	IM (instant messaging) channel name	string	Depend on the IM channels configured in the System. Examples: viber_promotion,whatsapp,sms
message	delivery report text generated by the switch	string	
message_id	message identifier, including the common ID of a concatenated message if the switch correctly detected concatenation and successfully put together all message segments	string	
mcc	MCC	string	
mccmnc	MCCMNC	string	
mnc	MNC	string	
part_amount	number of message parts	string	number, from 1 and above

Parameter	Description	Format	Allowed values
result_code	error code from the delivery report received from the vendor	string	The default value is "000"

MO SMS

Parameter	Description	Format	Allowed values
clientChannelId	vendor channel ID that was used to receive the deliver_sm	integer	
message_id	generated identifier associated with the message	string	
delivery_status	delivery status	string value, always equal to "MO"	MO
serviceType		string value, always equal to "MO"	MO
localAddress	local address to which the deliver_sm is received	string	
result_code		string value, always equal to "000"	000
ani	ANI	string	
dnis	DNIS	string	
message	message text in UTF-8	string	
delivery_time	time when the message was generated by the switch	string	Date format: YYMMDDHHMSS

Parameter	Description	Format	Allowed values
keyword	word templates used to remove words from the message text	string	
messageWithoutKeyword	message text without the words that were removed based on the templates	string	
udh	UDH in hexadecimal format	string	the allowed symbols are 0123456789ABCDEF. If the source message contains no UDH, the string is empty

15.5 Parameters used for incoming delivery reports and MO SMS over HTTP

The System can accept Callback URLs (cURL) over HTTP to receive MO messages and delivery reports over HTTP. The table below contains a minimum set of parameters with which the System owner can provide its vendor so that the vendor can configure the callback URL and send delivery statuses and/or MO messages to the System owner.

A sample cURL for sending delivery reports:

[http://alarisIP:8003/api?dnis=\\$dnis&username=SmsChannelUsername&password=SmsChannelPassword&command=deliver&dlvrMsgId=\\$messageID&dlvrMsgStat=\\$status](http://alarisIP:8003/api?dnis=$dnis&username=SmsChannelUsername&password=SmsChannelPassword&command=deliver&dlvrMsgId=$messageID&dlvrMsgStat=$status)

A sample cURL for sending MO:

[http://alarisIP:8003/api?dnis=\\$dnis&username=SmsChannelUsername&password=SmsChannelPassword&command=mo&message=\\$message_text](http://alarisIP:8003/api?dnis=$dnis&username=SmsChannelUsername&password=SmsChannelPassword&command=mo&message=$message_text)

(the *message* field is obligatory for MO)

Parameters used for incoming delivery reports and MO SMS over HTTP

Parameter	Description	Format	Allowed values	Required
command	request type	string	mo deliver	Yes

Appendix 1. HTTP API

Parameter	Description	Format	Allowed values	Required
ani	from	string		Yes
dnis	DNIS (to)	string		Yes
message	text of delivery report	string		No for sending delivery reports and Yes for MO
dlvrMsgld	messageId, message_id - ID of the submit request related to the delivery report	string		Yes if command=deliver
dlvrMsgStat	status, messageStatus - SMS delivery status	string	Allowed values must either be equal to the standard set of statuses or the vendor status translation rules	Yes if command=deliver
dlvrMsgErr	error code	string		No
username	authentication credentials used for vendor channel authentication	string		Quasi optional. If both parameters are missing from the request, the switch can use the parameter <i>callbackAuthData</i> from its configuration file to substitute the default authentication data
password				
srcTon	the respective parameters for ANI and DNIS	integer		No
srcNpi				
dstTon				
dstNpi				
dataCoding	data coding scheme for sending the SMPP to the client	integer	0, 1, 3, 6, 7, 8, 10, 14, where: <i>0: SMSC Default Alphabet (SMPP)</i>	No

Parameter	Description	Format	Allowed values	Required
			3.4)/MC Specific (SMPP 5.0) 1: IA5 (CCITT T.50)/ASCII (ANSI X3.4) 3: Latin 1 (ISO-8859- 1) 6: Cyrillic (ISO-8859- 5) 7: Latin/Hebrew (ISO-8859-8) 8: UCS2 (ISO/IEC- 10646) 10: ISO-2022-JP (Music Codes) 14: KS C 5601	

NOTE: If the request contains an optional parameter and its value is not in the list of allowed values, the submit will be rejected with the appropriate status.

16 Appendix 2. Supported HLR providers

The following HLR providers are supported by the System:

- Advance
- Beepsend
- CLX
- CM Telecom
- Calixtaondemand
- Cequens
- Elfo
- HLR Directory
- hlrlookups
- Horisen

NOTE: It is possible to interconnect with this provider directly through the routing module (bypassing connection to the HLR module). This comes instrumental when there is a need, for example, to ensure the performance of over 200-300 HLR requests per second. To enable the feature, contact the Alaris technical support team and communicate the code BZ30131.

- Infobip
- iSMS
- JT Navigate
- Kaleyra
- Lifecell
- Lleida
- Mediafon
- MessageBird
- Mitto
- NetNumber
- PlusMobile
- Restcomm
- RouteMobile
- Svyazcom
- Telesign
- Telintel



Appendix 2. Supported HLR providers

- Text2Reach
- TMT (live, live-sip, enum and HTTP services)
- Tyntec
- XConnect

17 Appendix 3. Rate search logic

The rate search procedure is employed in routing as well as billing operations in the database (when EDRs are matched to rates).

The following variables are used during rate search:

- The *Rate inheritance mode* parameter available in [Administration\System settings\SMS rates](#) ^[66]
- The *MCC "Rest of the world"* parameter available in [Administration\System settings\SMS routing](#) ^[69]
- The rate's *dial code* field is matched to the *Sender ID* present in a submit

Taking into account all these variables, the following logic priorities are employed:

Mode: global longest match	Mode: longest match at child first
Child rate for MCCMNC + Sender ID	Child rate for MCCMNC + Sender ID
Parent rate for MCCMNC + Sender ID	Child rate for MCCMNC + dial code
Child rate for MCCMNC + dial code	Child rate for MCCMNC without dial code
Parent rate for MCCMNC + dial code	Child rate for MCC + Sender ID
Child rate for MCCMNC without dial code	Child rate for MCC + dial code
Parent rate for MCCMNC without dial code	Child rate for MCC without dial code
Child rate for MCC + Sender ID	Child rate for Rest of world MCC + Sender ID
Parent rate for MCC + Sender ID	Child rate for Rest of world MCC + dial code
Child rate for MCC + dial code	Child rate for Rest of world MCC without dial code
Parent rate for MCC + dial code	Parent rate for MCCMNC + Sender ID
Child rate for MCC without dial code	Parent rate for MCCMNC + dial code
Parent rate for MCC without dial code	Parent rate for MCCMNC without dial code
Child rate for Rest of world MCC + Sender ID	Parent rate for MCC + Sender ID
Parent rate for Rest of world MCC + Sender ID	Parent rate for MCC + dial code
Child rate for Rest of world MCC + dial code	Parent rate for MCC without dial code

Appendix 3. Rate search logic

Mode: global longest match

Mode: longest match at child first

Parent rate for Rest of world MCC + dial code	Parent rate for Rest of world MCC + Sender ID
Child rate for Rest of world MCC without dial code	Parent rate for Rest of world MCC + dial code
Parent rate for Rest of world MCC without dial code	Parent rate for Rest of world MCC without dial code

18 Appendix 4. Formulas and conditions in routing

This section describes operators and variables which can be used to create routing rules and their choices (fields *Condition* and *Formula* in *Routing rules*). Besides, it provides examples how they can be used in different business cases.

NOTES:

The *Condition* serves to determine if the vendor from the corresponding choice will be selected. The expression in the field should return *True* or *False* (for each vendor the result may be different).

If the condition returns *True*, vendor is added to the list of possible routes (to which message send attempts will be made).

In the opposite case (the condition returns *False*), the vendor is not added - and the next vendor from the same or the next choice will be checked. In case there is no next *Choice*, the *Next* field is used to determine further action: stop the search, continue going through the same context or switch to another context.

The *Formula* serves to sort vendors that have been selected for routing by the condition from the *Condition* field. The result of this calculation returns a weight (a numeric value) according to which an ordered list of vendors will be compiled (a vendor with a greater weight is listed above a vendor with a lower weight).

If the vendor's weight is negative or equal to 0, it does not take part in routing (but it can be included in routing according to the next routing rules).

18.1 Operators

Operator	Code	Description	Allowed values
+	Value1+ Value2	Addition of operands	Operands: numeric values
-	Value1 - Value2	Subtracting of operands	Operands: numeric values
*	Value1 * Value2	Multiplication of operands	Operands: numeric values
/	Value1 / Value2	Division of operands	Operands: numeric values <i>(Note: one of the operands cannot be equal to zero – otherwise the formula expression cannot be executed).</i>
%	Value1 % Value2	Division of the operands by modulus (division of the left operand to the right one and returning a remainder)	Operands: numeric values <i>(Note: one of the operands cannot be equal to zero – otherwise the formula expression cannot be executed).</i>
**	Value1 ** Value2	Exponentiation of operand	Operands: numeric values

Operator	Code	Description	Allowed values
//	Value1 // Value2	Return integer part of operands' division	Operands: numeric values <i>(Note: one of the operands cannot be equal to zero – otherwise the formula expression cannot be executed).</i>
==	Value1 == Value2	Check if the operands are equal to each other	Operands: numeric values
!=	Value1 != Value2	Check if the operands are not equal to each other	Operands: numeric values
<>	Value1 <> Value2	Check if the operands are not equal to each other	Operands: numeric values
>	Value1 > Value2	Check if the first operand is strictly greater than the second operand	Operands: numeric values
<	Value1 < Value2	Check if the second operand is strictly greater than first operand	Operands: numeric values
>=	Value1 >= Value2	Check if the first operand is equal to the second operand or greater than the second operand	Operands: numeric values
<=	Value1 <= Value2	Check if the second operand is equal to or greater than the first operand	Operands: numeric values
and	Condition1 and Condition2	Logical operator: if <i>Condition1</i> is true and <i>Condition2</i> is true then the whole condition is true. In the opposite case the whole condition is false	Operands: more complex constructions composed of the above mentioned operands that serve as conditions <i>For example,</i> (Value1 != Value2) and (Value3 > 10)
or	Condition1 or Condition2	Logical operator: if at least one of the conditions is true then the whole condition is true. If none of them is true then the whole condition is false	Operands: more complex constructions composed of the above mentioned operands that serve as conditions <i>For example,</i> (Value1 % Value2 ==0) or (Value3 == 0)
in	Value1 in (Value2, ..., Valuen)	Checks if <i>Value1</i> is equal to one of the values from the list (<i>Value2</i> , ..., <i>Valuen</i>)	Routing metrics can be used as <i>Value1</i>
if else	Result1 if (Condition) else Result2	If <i>Condition</i> is true, return <i>Result1</i> , if <i>Condition</i> is false, return <i>Result2</i>	Operands: more complex constructions composed of the above mentioned operands that serve as conditions <i>For example,</i>

Operator	Code	Description	Allowed values
			MRG if (MRG > 0) else 0

18.2 Routing metrics

NOTE 1:

Examples for the *Condition* field are given in the column 'How to use'. Similar metrics can be used for the *Formula* field as well (but since a result of this field calculation should be a numeric value, only the following operators can be used: +, -, *, /, **, //, %).

For example, the MRG metric can be used in the *Condition* field in the following way: **MRG > -0.5**, and in the *Formula* field: **MRG+1**.

Additional examples can be found in Sections [How to use \(field 'Condition' in 'Routing Rules'\)](#)^[445] and [How to use \(field 'Formula' in 'Routing Rules'\)](#)^[437].

NOTE 2: Metrics from a Client/vendor feature (not mentioned in the following tables) also can be used for the *Condition* and *Formula* fields for checking if the condition is true or for calculation of weight.

NOTE 3: The condition can be set at the routing rule level (metrics from the following tables can be used for this purpose as well). If the specified condition is true, the rule will be used in the routing scheme, in the opposite case it will be skipped.

18.2.1 Client metrics

The metrics shows statistics for the client side.

Variable	Description	Note	How to use
CLAccBal	Client balance	In account currency	CLAccBal > 10 (the vendor is added to routing in case the client balance is greater than 10)
CLRate	Client rate	In system currency	CLRate > 0.3 (the vendor is added to routing in case the client rate is greater than 0.3)
CLPoiASR	ASR for the set 'client POI - MCCMNC'	From 0 to 1 The metric is calculated according to the latest EDR data. In case there are less than 100 messages (the window frame is set in <i>System settings >> SMS >> EMA frame</i>) in the file for the set, the EMA algorithm is being applied for calculation.	CLPoiASR > 0.6 (the vendor is added to routing in case ASR for the set is greater than 60%)
CLPoiDLR	DLR for the set 'client POI - MCCMNC'	From 0 to 1 The metric is calculated based on statistics from date when	CLPoiDLR > 0.55 (the vendor is added to routing in case DLR for the set is greater than 55%)

Variable	Description	Note	How to use
		<p>the procedure took place last time till current date, where the date of last check can be seen in <i>System settings >> SMS >> EMA stats last date</i> and value specified in <i>System settings >> SMS >> EMA stats delay, min</i> is subtracted from current date. When statistics has been calculated, date of last checking is set to current date minus <i>EMA stats delay, min</i>.</p> <p>In case there are less than 100 messages (the window frame is set in <i>System settings >> SMS >> EMA frame</i>) for the set for the period, EMA algorithm is being applied for calculation.</p>	

CLPoiADD	ADD for the set 'client POI - MCCMNC'	<p>In minutes</p> <p>Calculation of the metric is similar to the logic for <i>CLPoiDLR</i></p>	<p>CLPoiADD > 1</p> <p>(the vendor is added to routing in case ADD for the set is greater than 1 minute)</p>
CER	Client effective rate	<p>In system currency</p> $CER = CRate * (ASR - CLProdBillByDLR * (ASR - DLR))$ <p>where <i>CLProdBillByDLR = 1, if 'SMS billing option: Bill by delivered', in the opposite case - 0</i></p>	<p>CER < 0.5</p> <p>(the vendor is added to routing in case CER is less than 0.5)</p>

18.2.2 Vendor metrics

The metrics show statistics for the vendor side.

Variable	Description	Note	How to use
VAccBal	Vendor balance	In account currency	<p>VAccBal > 100</p> <p>(the vendor is added to routing in case its balance is greater than 100)</p>
VRate	Vendor rate	In system currency	<p>VRate < 0.3</p> <p>(the vendor is added to routing in case its rate is less than 0.3)</p>

Variable	Description	Note	How to use
VPoiASR	ASR for the set 'vendor POI - MCCMNC'	From 0 to 1 Calculation of the metric is similar to the logic for <i>CLPoiASR</i>	VPoiASR > 0.7 (the vendor is added to routing in case ASR for the set is greater than 70%)
VPoiDLR	DLR for the set 'vendor POI - MCCMNC'	From 0 to 1 Calculation of the metric is similar to the logic for <i>CLPoiDLR</i>	VPoiDLR > 0.5 (the vendor is added to routing in case DLR for the set is greater than 50%)
VPoiADD	ADD for the set 'vendor POI - MCCMNC'	In minutes Calculation of the metric is similar to the logic for <i>CLPoiDLR</i>	VPoiADD > 1 (the vendor is added to routing in case ADD for the set is greater than 1 minute)
VER	Vendor effective rate	In system currency VER = VRate*(ASR - VProdBillByDLR*(ASR-DLR)), where VProdBillByDLR = 1 if 'SMS billing option: Bill by delivered', in the opposite case - 0	VER > 0.2 (the vendor is added to routing in case VER is greater than 0.2)

18.2.3 Message metrics

The metrics shows statistics for the message.

Variable	Description	Note	How to use
aniTon	Type of A-number	Possible values: 0 - Unknown 1 - International (country code + destination code + subscriber number; e.g, +31612345678 - Netherlands) 2 - National (destination code + subscriber number) 3 - Network Specific (length of number is 5 symbols or less, e.g., 73833) 4 - Subscriber Number (without country code and destination code, e.g., for number 7-903-1234567 subscriber number in	aniTon== 1 (the vendor is added to routing in case the A-number is international)

Variable	Description	Note	How to use
		<p><i>international format is 1234567)</i></p> <p>5 - Alphanumeric (contains only letters or digits and letters)</p>	
aniNpi	Numbering type indicator (for A-number)	<p>Possible values:</p> <p>0 - Unknown 1 – E163/E164 3 – Data numbering Plan (X.121) 4 – Telex numbering Plan (F.69) 6 – Land Mobile (E.212) 8 – National numbering Plan 9 – Private numbering Plan 13 – Internet (IP)</p>	<p>aniNpi == 1</p> <p>(the vendor is added to routing in case the A-number in E163/E164 format)</p>
dnisTon	<p>Type of B-number</p> <p>Possible values: 0 - Unknown 1 - International 2 - National 3 - Network Specific 4 - Subscriber Number 5 - Alphanumeric</p>	<p>Possible values:</p> <p>0 - Unknown</p> <p>1 - International (country code + destination code + subscriber number; e.g, +31612345678 - Netherlands)</p> <p>2 - National (destination code + subscriber number)</p> <p>3 - Network Specific (length of number is 5 symbols or less, e.g., 73833)</p> <p>4 - Subscriber Number (without country code and destination code, e.g., for number 7-903-1234567 subscriber number in international format is 1234567)</p> <p>5 - Alphanumeric (contains only letters or digits and letters)</p>	<p>dnisTon != 5</p> <p>(the vendor is added to routing in case the B-number doesn't contain any letter)</p>
dnisNpi	Numbering type indicator (for B-number)	<p>Possible values:</p> <p>0 - Unknown 1 – E163/E164 3 – Data numbering Plan (X.121)</p>	<p>dnisNpi == 1</p> <p>(the vendor is added to routing in case the B-number in E163/E164 format)</p>

Variable	Description	Note	How to use
		4 – Telex numbering Plan (F.69) 6 – Land Mobile (E.212) 8 – National numbering Plan 9 – Private numbering Plan 13 – Internet (IP)	
DNISScore	Score for B-number	'Score' field from scoring-service response Scoring-service is a third-party service which estimates how risky will it be to send message to the number (how 'bad' the number is). Configuration for the service is similar to HLR configuration. Each service can return its own value. For example, Telesign service returns values of 'Score' from 0 to 1000 (the greater value, the worse the number)	dnisScore < 100 (the vendor is added to routing in case the result from scoring service is less than 100)
DNISRisk	Risk level of B-number	'Risk' field from scoring-service response Each service can return its own value. For example, Telesign service returns following values of 'Risc': Neutral, Low, Medium-Low, Medium, Medium-High, High	DNISRisk == 'Low' (the vendor is added to routing in case the result from scoring service is 'Low')
REFMCCMNC	MCCMNC value from Reference Book		REFMCCMNC == "250099" (the vendor is added to routing in case the MCCMNC from Reference Book is 250099)
HLRMCCMNC	MCCMNC value from HLR		HLRMCCMNC == "250001" (the vendor is added to routing in case the MCCMNC from HLR service is 250001)
hlrResponseCode	Value returned from HLR provider in <i>providerResponseCode</i> field, the metric works only in case HLR configuration is done via HLR proxy	The exact value must be specified. For example, if a provider returns it as a string, the value should be in quote marks. For Mitto provider <i>providerResponseCode</i> is taken from the <i>gsmCode</i> field.	hlrResponseCode == 0 (the vendor is added to routing in case Mitto (for example) returns 0 in the <i>gsmCode</i> field)

Variable	Description	Note	How to use
		<p>For Infobip provider - from the <i>groupName</i> field; for Tyntec - from <i>errorCode</i> field.</p> <p>For CM Telecom the metric equals to 0 if <i>valid_number</i> field is either absent from the provider's response or false is returned in it, and equals to 1 if true is returned in the field.</p> <p>For RouteMobile the value is taken from the <i>errcode</i> field.</p> <p>For TMT live provider the value is taken from the <i>e</i> field (as a string, e.g, <i>hlrResponseCode="34"</i>)</p> <p>For JT Navigate provider the value is taken from the <i>StatusCode</i> field</p> <p>For Telesign provider the value is taken from the <i>device_status</i> field</p> <p>For NetNumber provider the value is taken from the <i>status</i> field (as a string, e.g, <i>hlrResponseCode="active"</i>)</p> <p>For TMT live-sip service the value is taken from the <i>gsmcode</i> field</p>	
PORTED	Is number ported	<p>Return <i>True</i> if the number is ported, <i>False</i> – in the opposite case</p> <p>(in case HLR service returns the response with <i>MCCMNC</i> value, <i>PORTED</i> = 1)</p>	<p>PORTED</p> <p>(the vendor is added to routing in case the number is ported)</p>
messageLen	Message length	In bytes	<p>messageLen < 160</p> <p>(the vendor is added to routing in case the message length is less than 160 bytes)</p>
concatMessage	Is message part of long message	<p>Return 1 if the message contains either UDH or SAR and hasn't been processed by the Stateful concatenated messages functionality; 0 - in the opposite case</p>	<p>concatMessage == 1</p> <p>(the vendor is added to routing in case the message is concatenated)</p>
statefulConcatMessage	The value is set to 1 if message parts were collected with the help of the <i>Stateful</i>		<p>statefulConcatMessage == 1</p> <p>(a message will be routed to the provider(s) in case it is a concatenated one)</p>

Variable	Description	Note	How to use
	<i>concatenated messages processing</i> functionality and to 0 in the opposite case		
verifiedSMS	The <i>is verified</i> flag returned by the Google Verified SMS service	The service must be preconfigured by the Alaris team at first in order for the System owner to use it. Additionally the corresponding flag must be selected for the product	verifiedSMS == 1 (the message will be sent to the rule/choice if the service returns 'is verified' = 1).

18.2.4 Rule metrics

The metrics shows routing rule statistics.

Variable	Description	Note	How to use
RuleAttCNT	The number of times when the rule was applied and the vendor's product was chosen and used for routing according to this rule	Period for calculation of the metric can be set in <i>System Settings -> SMS -> "Rule count stats clear policy (1 - daily, 2 - weekly, 3 - monthly)"</i> The data is calculated based on EDR	RuleAttCNT > 5 (the vendor is added to routing in case attempts count of message sending for the rule is greater than 5)
RuleSucCNT	The number of times when the rule was applied and the vendor's product was chosen and used for routing according to this rule with successful sending of the message	Period for calculation of the metric can be set in <i>System Settings -> SMS -> "Rule count stats clear policy (1 - daily, 2 - weekly, 3 - monthly)"</i> The data is calculated based on EDR	RuleSucCNT > 3 (the vendor is added to routing in case more than 3 messages were sent through the rule)
RuleDivCNT	The number of times when the rule was applied and the vendor's product was chosen and used for routing according to this rule with sending of a message with 'DELIVRD' and ACTIVATED status	Period for calculation of the metric can be set in <i>System Settings -> SMS -> "Rule count stats clear policy (1 - daily, 2 - weekly, 3 - monthly)"</i> The data is calculated based on EDR	RuleDivCNT > 2 (the vendor is added to routing in case more than 2 messages with DELIVRD status were passed through the rule. The metric is not updated when messages are sent through <i>Send SMS</i> , when the vendor returns delivery reports)
MRGH	Average hourly margin value (within the rule)	In System currency The data is calculated based on EDR	MRGH > 0.5 (the vendor is added to routing in case the margin for an hour is greater than 0.5)

Variable	Description	Note	How to use
MRGD	Average daily margin value (within the rule)	In System currency The data is calculated based on EDR	MRGD > 0.3 (the vendor is added to routing in case the margin for a day is greater than 0.3)
TotalMRGH	Total hourly margin value (within all rules)	In System currency The data is calculated based on EDR	TotalMRGH > 0.3 (the vendor is added to routing in case total margin for an hour is greater than 0.3)
TotalMRGD	Total daily margin value (within all rules)	In System currency The data is calculated based on EDR	TotalMRGD > 0.4 (the vendor is added to routing in case the total margin for a day is greater than 0.4)

18.2.5 Common metrics

Variable	Description	Note	How to use
CurTime	Current time in seconds since 01.01.1970		(CurTime % 3600) < 300 (the choice is selected for routing every 5 minutes of every hour)
curHour	Current hour	Possible values: 0-23	curHour >= 12 (choice is selected for routing starting from 12 P.M. till 12 A.M.)
curDoW	Current day of the week	Possible values: 1-7, where 1 – Monday, 7 - Sunday	curDoW != 7 (the choice is selected for routing every day except for Sunday)
HLRRATE	Cost of HLR dipping in System currency	If no vendor HLR product is found or no HLR rate is found, the metric is equal to 0	HLRRATE == 0 (the vendor is added to routing in case no cost is charged for HLR dipping)
RND	Random float value from 0 to 1, generated for every vendor's product from choice		RND > 0.3 (the vendor is added to routing in case generated random value is greater than 0.3)
MARG	Margin	In System currency. If the margin is less than 0.0000009, it is still	MARG > 0.1

Variable	Description	Note	How to use
		considered as 0.	(the vendor is added to routing in case the margin is greater than 0.1)

18.3 How to use (field 'Condition' in 'Routing Rules')

VPoiDLR > n

The condition returns *True* if VPoiDLR is greater than n, in the opposite case *False* is returned

Example

Condition: $VPoiDLR > 0.5$

If DLR for the set 'vendor POI - MCCMNC' is greater than 50%, then *True* is returned, in the opposite case - *False*

CLAccBal > n

The condition returns *True* if the client's balance is greater than n, in the opposite case *False* is returned

Example

Condition: $CLAccBal > 500$

If the balance is greater than 500, *True* is returned, in the opposite case *False* is returned

concatMessage == 0

The condition returns *True* if the message is not concatenated, in the opposite case *False* is returned

dnisTon in (1,2)

The condition returns *True* if the B-number is in the *International* or *National* format, in the opposite case *False* is returned

CER > 0.5

The condition returns *True* if the client's effective rate is greater than 0.5, in the opposite case *False* is returned

Example

Client's rate = 0.33,

Client POI ASR = 70%,

Client POI DLR = 69%,

Billing mode for client's product: 'Bill by attempts' - therefore $CLProdBillByDLR = 0$.

In this case $CER = 0.33 * (0.7 - 0 * (0.7 - 0.69)) = 0.231 < 0.5$, The condition returns *False*

18.4 How to use (field 'Formula' in 'Routing Rules')

VPoiDLR * VPoiASR

This formula can be used in case it is needed to sort the vendors by the value of multiplication of ASR and DLR metrics (both based on the set 'vendor POI - MCCMNC')

Example

The routing list contains 2 vendors:

Vendor1: VPoiDLR = 80%, VPoiASR = 78%

Vendor2: VPoiDLR = 50%, VPoiASR = 90%

When the mentioned formula is set in Formula field, vendors will be sorted in following way:

Vendor1: $VPoiDLR * VPoiASR = 6,24$

Vendor2: $VPoiDLR * VPoiASR = 4,5$

100*MRG + VPoiDLR + VPoiASR

This formula can be used in case it is needed to sort the vendors by the value of 3 metrics (DLR and ASR - both based on the set 'vendor POI - MCCMNC', and margin multiplied by 100)

Example

The routing list contains 2 vendors:

Vendor1: MRG = 3, VPoiDLR = 80%, VPoiASR = 78%

Vendor2: MRG = 5, VPoiDLR = 50%, VPoiASR = 90%

When the mentioned formula is set in Formula field, vendors will be sorted in following way:

Vendor2: $MRG * 100 + VPoiDLR + VPoiASR = 501,4$

Vendor1: $MRG * 100 + VPoiDLR + VPoiASR = 301,58$

RND + VPoiASR * VPoiACD

This formula can be used in case it is needed to sort the vendors by the value of multiplication of ACD and ASR (both based on the set 'vendor POI - MCCMNC') and addition of a random value

Example

The routing list contains 3 vendors:

Vendor1: VPoiASR= 90%, VPoiACD= 70

Vendor2: VPoiASR= 90%, VPoiACD= 70

Vendor3: VPoiASR= 80%, VPoiACD= 80

Suppose the random value is generated for every vendor as follows:

Vendor1: 0.2

Vendor2: 0.3

Vendor3: 0.75

Then vendors will be sorted in the following way:

Vendor3: $RND+VPoiASR*VPoiACD = 64.75$

Vendor2: $RND+VPoiASR*VPoiACD = 63.3$

Vendor1: $RND+VPoiASR*VPoiACD = 63,2$

-1 if PORTED else 1

The formula weight will be equal to -1 (the vendor will not be chosen for routing) if the message is ported and equal to 1 in the opposite case.

Example

The routing list contains 2 vendors:

Vendor1: PORTED = true

Vendor2: PORTED = false

(the message will be ported if it is sent to Vendor1 and will not be ported if it is sent to Vendor2).

When the mentioned formula is set in the Formula field, only Vendor2 will be chosen for routing (as Vendor1's weight is equal to -1 and Vendor2's weight is equal to 1).

VER

Example

Rate for vendor1 = 0.3,

Vendor1 POI ASR = 75%,

Vendor1 POI DLR = 40%,

Billing mode for product vendor1: 'Bill by delivered' - therefore VProdBillByDLR = 1.

Rate for vendor2 = 0.25,

Vendor2 POI ASR = 90%,

Vendor2 POI DLR = 85%,

Billing mode for product vendor2: 'Bill by submit' - therefore VProdBillByDLR = 0.

The sorted list will look as follows:

Vendor2: $VER = 0.25 * (0.9 - 0 * (0.9 - 0.85)) = 0.225$

Vendor1: $VER = 0.3 * (0.75 - 1 * (0.75 - 0.4)) = 0.12$

19 Appendix 5. SMS simulation troubleshooting guide

19.1 Simulation process

This section presents a step-by-step description of the simulation process. It is designed to help System users analyze the SMS simulation guide to locate possible routing issues.

1. Initial data

Input parameters entered in Simulation tab

```
===== route search trace =====
----- initial data -----
ANI/DNIS   FB / 786124, ToN 1/1, NPI 1/1, DC 0, parts 1, concat 0, message length 11
guid      life_smpp
text      just a text
serviceType 80
setup time 2018-04-16 12:36:52.628752
target time 2018-04-16 12:36:52 (1523882212.0)
VUA       NOT VUA (False)
ForcedMCCMNC
Message    just a text
Local addr []
```

where

ANI	Sender ID
DNIS	Destination address
ToN	Type of number (ANI/DNIS)
NPI	Numbering type indicator (ANI/DNIS)
DC	Message data coding
parts	Number of message parts
message length	Message length
Guid	Unique channel identifier (usually identical to channel name)
Text	Message text
service type	POI service type
setup time	Simulation start time
target time	Time from field <i>Time</i> in <i>Simulation</i> tab
Message	Message text
Local addr	<i>Local address</i> field in <i>Simulation</i> tab

note: ToN and NPI values are shown as 1 by default

2. Client identification

```
----- STAGE 1: looking for client -----
client searching status - SMS channel id 16474, SMS POI id 16170
Client SMS POI id <16170>, valid 2017-11-27 00:00:00 - 2030-12-31 23:59:59
Client SMS channel id <16474>, enabled - 1
Client product id <12363>, mode (2) <Client, bill by messages, include vendors with segment billing>, retailBil <1>
Client account id <10942>, balance 0.0000, limit <no limit>
```

Client operator id <3165>, inbound allowed 1, trusted - 1

where

client authentication

client searching status - SMS channel id 16474, SMS POI id 16170

client SMS POI identification: check client SMS POI validity

Client SMS POI id	client SMS POI ID
valid	SMS POI validation period ('Active from' and 'Active till' dates from SMS POI tab)

client channel identification: check if client channel is active

Client SMS Channel ID	client channel ID
enabled	Is SMS Channel active ('Enabled' option is set in SMS Channels tab)

client product identification:

Client product id	product ID
Mode	SMS product billing option
retailBil	if 'Billable' option is selected in Products tab (if the option is disabled, client's financial data as balance or credit is not being checked during simulation)

client account identification: check if client account is not blocked

Client account id	account ID
balance	current account balance
limit	value from 'In credit' field in Agreement tab

client identification: check if client traffic is allowed

Client operator id	carrier ID
inbound allowed	shows 1 if 'Inbound traffic allowed' option is set in Carriers tab, else shows 0
trusted	shows 1 if 'In credit' field in Agreement tab is not filled, else shows 0

Applying translation rules, stage 0, time 2018-04-16 12:36:52, cProd 12363, vProd None, ANI FB(ToN 5, NPI 0), DNIS 786124(ToN 1, NPI 1):

ANI ToN: rule 10730 found, rule translation applied, 5->33
RegDlv: rule 10417 found, rule translation applied, new RegDlv - <1>

where

stage 0	pre-routing stage (defined in Translation rules interface)
time 2018-04-16 12:36:52	target time of the simulation task
cProd 12363	client product ID
vProd None	vendor product ID (as it is pre-routing stage - vendor is not defined yet, so the ID is None)
ANI FB(ToN 5, NPI 0)	Sender ID and actual ToN and NPI of it
DNIS 786124(ToN 1, NPI 1)	Destination address and actual ToN and NPI of it

pre-routing translation rules are being applied:

ANI ToN: rule 10730 found, rule translation applied, 5->33

Sender ID's ToN is being changed from 5 to 33 in accordance with translation rule ID 10730

RegDiv: rule 10417 found, rule translation applied, new RegDiv - <1>

Flag 'registered delivery' is set to 1 accordingly to rule ID 10417

MCCMNC search data:

PFX <786124>:

LOT <50>, data ['i', 1010109, '786124', '250001', 946684800, 1924991999, 50], cTime 1523882212.63 - selected

PFX <78612>: missed

PFX <7861>: missed

PFX <786>: missed

PFX <78>: missed

PFX <7>:

LOT <50>, data ['i', 247875, '7', '250', 946684800, 1924991999, 50], cTime 1523882212.63 - selected

Selected data list:

LOT 50, pfx <786124>, mccmnc <250001>, 01.01.2000-31.12.2030

LOT 50, pfx <7>, mccmnc <250>, 01.01.2000-31.12.2030

MCCMNC <250001> for DNIS <786124> found

Network <MTS> and country <Russian Federation> with refId 30979 found for MCCMNC <250001> and DNIS <786124>, netOnly ID 250001

Client currency and rate - EUR, 1.23690

search all available MCCMNC for the given DNIS (longest match search):

MCCMNC search data:

PFX <786124>:

LOT <50>, data ['i', 1010109, '786124', '250001', 946684800, 1924991999, 50], cTime 1523882212.63 - selected

(for prefix 786124 MCCMNC is found in Reference book with specified data: ID from Reference book bottom grid, dial-code, MCC/MCCMNC, LOT)

(note: MCCMNC specified as 'obsolete' has End date less than current date)

PFX <78612>: missed

PFX <7861>: missed

PFX <786>: missed

PFX <78>: missed

(for prefixes mentioned above MCCMNC is not found in Reference book)

PFX <7>:

LOT <50>, data ['i', 247875, '7', '250', 946684800, 1924991999, 50], cTime 1523882212.63 - selected

final list of selected suitable MCCMNC:

Selected data list:

LOT 50, pfx <786124>, mccmnc <250001>, 01.01.2000-31.12.2030

LOT 50, pfx <7>, mccmnc <250>, 01.01.2000-31.12.2030

selected MCCMNC for routing (dial code with longest match is selected):

MCCMNC <250001> for DNIS <786124> found

network and country identification for selected MCCMNC:

Network <MTS> and country <Russian Federation> with reld 30979 found for MCCMNC <250001> and DNIS <786124>, netOnly ID 250001

client account currency and exchange rate between system currency and client account currency identification:

Client currency and rate - EUR, 1.23690

3. Client rate identification

----- looking for client rates -----

Client product chain - 12363, 10048, mode - longest match

Check E212 <250001>, dialcode <Facebook>, prod 12363, rate ID 237822/cost 0.50000 - skipped as filtered by rate dialcode

Check E212 <250001>, dialcode <>, prod 12363, rate ID 224787/cost 0.00500 - skipped as OBSOLETE

Check E212 <250001>, dialcode <FB>, prod 10048, rate ID 237823/cost 0.03000 - selected (w: 100099) by ANI
 Use client rate id 237823, mccmnc <250001>, dialcode <FB>, system/acct cur cost <(M)0.03624>/<0.03000>

Searching for client rate in client product ID 12363 and its parent product ID 10048 (mode is determined by the system setting 'Rate inheritance mode (0 - longest match at child, 1 - global longest match)':

Client product chain – 12363, 10048, mode - longest match

Check E212 <250001>, dialcode <Facebook>, prod 12363, rate ID 237822/cost 0.50000 - skipped as filtered by rate dialcode

(rate for the MCCMNC is found but filtered by specified in rate dial-code 'Facebook' as Sender ID is FB)

Check E212 <250001>, dialcode <FB>, prod 10048, rate ID 237823/cost 0.03000 - selected (w: 100099) by ANI

(rate for specified MCCMNC, dial-code and product ID with the ID and the cost is found and selected)

definition of selected client rate:

Use client rate id 237823, mccmnc <250001>, dialcode <FB>, system/acct cur cost <(M) 0.03624>/<0.03000>

(rate ID, MCCMNC, dial-code, system and client account currency)

4. Vendor rate identification

----- looking for vendor rates -----

25 vendor rates found for MCCMNC <250001>:

rate (None, 229450, 14152, '250001', 1518739200, 1924991999, 0, 0.30000001192092896, ")

Check MCCMNC <250001>, rate ID 229450/cost 0.30000 - selected

.....

rate (None, 231782, 10027, '250001', 1456790400, 1924991999, 0, 0.2199999988079071, 'No_way')

Check MCCMNC <250001>, rate ID 231782/cost 0.22000 - skipped as filtered by dialcode

.....

Searching all possible vendor rates for code 250001:

rate (None, 229450, 14152, '250001', 1518739200, 1924991999, 0, 0.30000001192092896, ")

(rate ID, product ID, MCCMNC, rate start and end dates in unixtime format, cost, dialcode)

Check MCCMNC <250001>, rate ID 229450/cost 0.30000 - selected

(rate ID 229450 is selected so vendor product ID 14152 can be added to routing)

Check MCCMNC <250001>, rate ID 231782/cost 0.22000 - skipped as filtered by dialcode

(rate ID 231782 was skipped due to inappropriate dial code 'No_way')

Searching all possible vendor's rates for code 250 and 777 (as it is specified as 'MCC "Rest of the world' in System settings)

29 vendor rates found for MCC code <250>:

rate (None, 229455, 14152, '250', 1518739200, 1924991999, 0, 0.44999998807907104, ")
Check MCCMNC <250>, rate ID 229455/cost 0.45000 - selected

.....

6 vendor rates found for rest of world MCC code <777>:

rate (None, 132415, 10027, '777', 1488326400, 1924991999, 0, 5.0, ")
Check MCCMNC <777>, rate ID 132415/cost 5.00000 - selected

.....

Summary of selected vendor rates:

Following vendor rates found:

mccmnc <250001>, prod id 14152, rate id 229450, value 0.30000, valid 2018-02-16 00:00:00 - 2030-12-31 23:59:59

mccmnc <250>, prod id 14152, rate id 229455, value 0.45000, valid 2018-02-16 00:00:00 - 2030-12-31 23:59:59

mccmnc <777>, prod id 10027, rate id 132415, value 5.00000, valid 2017-03-01 00:00:00 - 2030-12-31 23:59:59

(MCCMNC, product ID, rate ID, cost, start and end dates of rate)

Vendor rates after filtering:

1 mccmnc <250001>, prod id 14152, rate id 229450, system/acct cur value 0.37107/0.30000

.....

(MCCMNC, product ID, rate ID, cost in system/account currency)

Checking available vendor's POI (for corresponding vendor's product which rates were selected on previous step) and vendor product's billing mode:

Searching POI list and checking vendor product billing mode:

Product 10368, cost 0.01000, billing mode (M 2-6)

Product 10368, SMS POI 10927, SMS channel 11462 is disable, skipped

...

Product 14152, cost 0.37107, billing mode (S 2-7)

...

No SMS POI found for vendor product with ID <10775>

Product 10265, cost 0.10000, billing mode (M 2-6)

SMS POI 10040 is obsolete, skipped

Vendor ID 790 - outbound traffic prohibited

...

Vendor account for product 10185 is over 5057.900000 (limit 500.0000)

...

Product 10368, cost 0.01000, billing mode (M 2-6)

(product ID 10368 with rate 0.01 is in message billing mode)

Product 10368, SMS POI 10927, SMS channel 11462 is disable, skipped

(product ID 10368 is skipped from routing as corresponding SMS channel is not active)

Product 14152, cost 0.37107, billing mode (S 2-7)

(product ID 14152 with rate 0.37107 is in segment billing mode)

(note: in case client's billing mode is 'Client, bill by messages, exclude vendors with segment billing', the product will be skipped from routing list due to inappropriate billing mode)

No SMS POI found for vendor product with ID <10775>

(product ID 10775 is skipped from routing as there is no any SMS POI for the product)

Product 10265, cost 0.10000, billing mode (M 2-6)

SMS POI 10040 is obsolete, skipped

(product ID 10265 is skipped from routing as corresponding SMS POI is not active)

Vendor ID 790 - outbound traffic prohibited

(vendor ID 790 is not allowed to receive traffic - option 'Outbound traffic allowed' is disabled)

Vendor account for product 10185 is over 5057.900000 (limit 500.0000)

(product ID 10185 is skipped from routing due to exceeding of credit limit.

Note: vendor's limit verification can be disabled in System settings via setting 'SMS vendor credit control enabled (1 - yes, 0 - no)')

Checking available vendor's channels (for corresponding vendor's product selected on previous step):

Following vendor SMSC found:

.....

Oper id 4993, acct id 12786, mccmnc <250001>, prod id 14152 (7) <Vendor, bill by segments>, rate id/code/value 229450//0.300000011921, 1 SMS POIs

SMSC id/sType/SMS_Ch 16717/base/18117

.....

Oper id 4993, acct id 12786, mccmnc <250001>, prod id 14152 (7) <Vendor, bill by segments>, rate id/code/value 229450//0.300000011921, 1 SMS POIs

(carrier ID, account ID, selected MCCMNC, product ID and its billing mode, rate ID, cost, count of corresponding SMS POI)

SMSC id/sType/SMS_Ch 16717/base/18117

(POI ID 16717, POI service type, channel ID 18117)

ANI prefix tags not found

Looking for destination features (2018-04-16 12:36:52):

vProd 10027: Bin=Yes(OK/OK), MSGLength=33(OK/OK)

vProd 10142: Bin=No(OK/OK), MSGLength=150(OK/OK)

vProd 11739: autoFalseDLR=No(OK/OK), autoTextIntegrity=Yes(OK/OK)

Checking suitable Sender ID tags:

ANI prefix tags not found

Checking routing features which are actual on simulation target time for the MCCMNC and for the added to routing products):

Looking for destination features (2018-04-16 12:36:52):

vProd 10027: Bin=Yes(OK/OK), MSGLength=33(OK/OK)

(product ID: feature code and its value with result: if name of routing feature code (client/vendor side) can be compiled by routing module)

5. Routing rules

Checking all possible routing rules until 'Next' action of checked rule is 'Huntstop' (if there is no huntstop - until rule with the lowest priority and ID in the current context is checked).

Note: rules with 'Block' type are being checked in the first place (depending on block rule priority and ID - rule with the greater ID but with the same priority is being checked first), after that rules in 'DEFAULT' context is being checked.

```
----- STAGE 5: looking for routing rules ( 22 routes found ) -----
context DEFAULT, rule id <12448>, type  BLOCK, prio 100 - selected
  Vendor product id 14068 blocked, route 22
context DEFAULT, rule id <10005>, type  BLOCK, prio 100 - dropped by INCLUSIVE client product filter
context DEFAULT, rule id <10140>, type  BLOCK, prio 50 - dropped, rule inactive
context DEFAULT, rule id <11868>, type  REGULAR, prio 100 - dropped by INCLUSIVE client product filter
.....
```

context DEFAULT, rule id <12448>, type BLOCK, prio 100 - selected

Vendor product id 14068 blocked, route 22

(Rule ID 12448 is selected - and vendor's product ID 14068 is blocked for routing)

context DEFAULT, rule id <10005>, type BLOCK, prio 100 - dropped by INCLUSIVE client product filter

(Rule ID 10005 is dropped due to client product filter)

context DEFAULT, rule id <10140>, type BLOCK, prio 50 - dropped, rule inactive

(Rule ID 10140 is dropped due to date filter)

```
context DEFAULT, rule id <11863>, type  REGULAR, prio 100 - selected
  Key list : {'localAddress': [], 'dstNpi': 1, 'srcTon': 5, 'partAmount': 1, 'messageText': 'just a text', 'setupTime': '',
'dstTon': 1, 'ani': 'FB', 'dc': 0, 'concatMessage': 0, 'srv_type': '80', 'DNISRisk': '', 'startTime': 1523882212.6287451,
'srcNpi': 0, 'messageLen': 11, 'DNISScore': -1, 'dnis': '786124', 'customer_id': 'life_smp'}
  ref/HLR MCCMNC <250001>/<250001>, is ported <False>
  RuleStat: MRGH 0.000, MRGD 0.000, RuleAttCNT 0, RuleSucCNT 0, RuleDivCNT 0
  TotalRuleStat: MRGH 0.000, MRGD 3513.761
```

Regular rule ID 11863 with priority 100 in DEFAULT context is selected for routing:

(note: 'Condition: MRG > -0.5' and 'Formula: MRG+1'):

Key list : {'localAddress': [], 'dstNpi': 1, 'srcTon': 5, 'partAmount': 1, 'messageText': 'just a text', 'setupTime': '', 'dstTon': 1, 'ani': 'FB', 'dc': 0, 'concatMessage': 0, 'srv_type': '80', 'DNISRisk': '', 'startTime': 1523882212.6287451, 'srcNpi': 0, 'messageLen': 11, 'DNISScore': -1, 'dnis': '786124', 'customer_id': 'life_smp'}

(parameters of simulation task: switch local address, destination NPI, source TON, message part count, message text, destination TON, Sender ID, datacoding, is message concatenated, client's POI service type, Risk value of Destination address, simulation target time, source NPI, message length, Score value for Destination address, Destination address, channel GUID)

ref/HLR MCCMNC <250001>/<250001>, is ported <False>

(MCCMNC in accordance with reference book and HLR source - in case of HLR dipping)

RuleStat: MRGH 0.000, MRGD 0.000, RuleAttCNT 0, RuleSucCNT 0, RuleDivCNT 0
(the rule statistics)

TotalRuleStat: MRGH 0.000, MRGD 3513.761
(total routing rules statistics - margin for current hour and for current day)

poolNum 0, pool len 2, curDoW 1, curHour 12
choice 0, grant 70, RND 46.0
choice 0 selected, type DYNAMIC
cSMSPOI: ASR 0.000, DLR 0.000, ADD 0.000, CER 0.000, count 0

Where

poolNum 0, pool len 1, curDoW 1, curHour 12
choice number - starting with 0, number of sub-choices, current day of week, current hour

choice 0, grant 70, RND 46.0
sub-choice number - starting with 0, specified 'Share,%', random value - in case the value is less than share, the sub-choice is selected:
choice 0 selected, type DYNAMIC

cSMSPOI: ASR 0.000, DLR 0.000, ADD 0.000, CER 0.000, count 0
client's POI statistics

vProd 14253 <oper id 5043>, e212 <250> - rate note valid
MRG -1.06376302465, rates 0.036237-1.100000, RND 0.471089395416
SMS POI ID 16733, ASR 0.000, DLR 0.000, ADD 0.000, VER 0.000, count 0
condition False,
vProd 14152 <oper id 4993>, e212 <250001> - rate note valid
MRG -0.334833, rates 0.036237-0.37107, RND 0.0437274356135
SMS POI ID 16717, ASR 0.000, DLR 0.000, ADD 0.000, VER 0.000, count 0
condition True, weight 0.665167
SMS POI 16717 added
vProd 11437 <oper id 3056>, e212 <250> - rate note valid
MRG -1.16376300379, rates 0.036237-1.20000000379, RND 0.274075945841
SMS POI ID 12835, ASR 0.000, DLR 0.000, ADD 0.000, VER 0.000, count 0
condition True, weight -0.16376300379

.....

Checking the choice of rule ID 11863:
vProd 14253 <oper id 5043>, e212 <250> - rate note valid
(vendor product ID, carrier ID, MCCMNC)

MRG -1.06376302465, rates 0.036237-1.100000, RND 0.471089395416
(margin, client rate - vendor rate, random value)

SMS POI ID 16733, ASR 0.000, DLR 0.000, ADD 0.000, VER 0.000, count 0
(vendor POI ID and its statistics)

condition False,

(as 'Condition' is specified as 'MRG > -1', the condition is considered as false and vendor is not added to routing list)

vProd 14152 <oper id 4993>, e212 <250001> - rate note valid

...

condition True, weight 0.665167

SMS POI 16717 added

(condition is true and weight (which is calculated based on 'Formula' field) is positive - vendor is added to routing)

vProd 11437 <oper id 3056>, e212 <250> - rate note valid

.....

condition True, weight -0.16376300379

(vendor is not added to routing as weight is negative)

poolNum 1, pool len 1, curDoW 1, curHour 12

choice 0 selected, type STATIC

cSMSPOI: ASR 0.000, DLR 0.000, ADD 0.000, CER 0.000, count 0

0: oper 2445, prod 10370, choiceProdId 11134 - dropped by productID list

1: oper 310, prod 10027, choiceProdId 11134 - dropped by productID list

2: oper 3489, prod 13446, choiceProdId 11134 - dropped by productID list

3: oper 2449, prod 10377, choiceProdId 11134 - dropped by productID list

.....

HUNT STOP

poolNum 1, pool len 1, curDoW 1, curHour 12

...

3: oper 2449, prod 10377, choiceProdId 11134 - dropped by productID list

(the second choice with type static is being checked - none of checked products is suitable for the choice as only product ID 11134 is specified in it; as this product doesn't have rates for corresponding codes, it cannot be chosen for routing)

HUNT STOP

(Next option of the rule - routing is not checking any vendors after this option)

Rules checked/applied: 20/1

Route added: 1. vProd 14152, SMS POI 16717-base, SMS cnl 18117-AC_Vnd_SMPP_01, E212 <250001>, rate 0.371070014745, ANI <FB>, DNIS <786124>, ToN/NPI/RD/F (33, 0, 1, 1, 1, 0)

Applying translation rules, stage 1, time 2018-04-16 12:36:52, cProd 12363, vProd 14152, ANI FB(ToN 33, NPI 0), DNIS 786124(ToN 1, NPI 1):

Message: rule 11062 found, rule translation applied as expand, new value <translated text>

Summary of checked and applied rules:

Rules checked/applied: 20/1

(all type of rules are checked, but only regular and test routing rules are considered as applied)

Summary of added route(s):

Route added: 1. vProd 14152, SMS POI 16717-base, SMS cnl 18117-AC_Vnd_SMPP_01, E212 <250001>, rate 0.371070014745, ANI <FB>, DNIS <786124>, ToN/NPI/RD/F (33, 0, 1, 1, 1, 0)

(vendor’s product ID, SMS POI ID and its service type, SMS channel ID and its GUID, MCCMNC, vendor rate, sender ID, destination address, source/destination TON and NPI, registered delivery and flash message flags)

post-routing translation rules are being applied:

Applying translation rules, stage 1, time 2018-04-16 12:36:52, cProd 12363, vProd 14152, ANI FB(ToN 33, NPI 0), DNIS 786124(ToN 1, NPI 1):

Message: rule 11062 found, rule translation applied as expand, new value <translated text>

(Message text is set to ‘translated text’)

6. Final routing list

Result of selected for routing vendor’s product(s) is represented in the table below (note - in case of several routes, static vendors will go first, dynamic vendors will be sorted in accordance with corresponding formula - from higher weight to the least one):

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+
| N | Context | Weight | Vendor | Product | Vendor POI | MCCMNC | ASR | DLR | Rate | ANI
| DNIS |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+
| 1 | DEFAULT | FIXED_999 | 4993 | 14152 | (16717) base | 250001 | 0.0% | 0.0% | 0.37107 |
| FB | 786124 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+
    
```

19.2 Common issues

This section provides some examples of simulation logs that contain the ‘No routes found’ entry or end up without routes list (and reasons for it).

1. Channel disabled

In case option ‘Enabled’ is not set in SMS Channels tab, simulation log will look like this:

```

.....
----- STAGE 1: looking for client -----
client searching status - SMS channel id 16474, SMS POI id 15297
client SMS channel disable
    
```

2. No active POI is found

If client SMS POI close date is older than current date, entry in simulation log will be as follows:

```

----- STAGE 1: looking for client -----
client searching status - SMS channel id 16474, SMS POI id NOT FOUND
No SMS POI or SMS channel found
    
```

3. Client agreement is outdated

In case ‘End date’ of client’s agreement is older than current date (and time) - routes for simulation will not be found (note: date ‘1970-01-01’ is specified in the log as routing module cannot find any suitable agreement):

```

----- STAGE 1: looking for client -----
client searching status - SMS channel id 18895, SMS POI id 17353
client account is outdated - allowed period is 1970-01-01 03:00:00 - 1970-01-01 03:00:00

```

4. Account balance is too low

In case client balance exceeded value specified '*In credit limit*' in *Agreements* tab, simulation log will have the following rows:

```

----- STAGE 1: looking for client -----
client searching status - SMS channel id 16474, SMS POI id 15297
.....

```

```

ANI prefix tags not found
client account is over 0.000000 ( limit 0.0000 )
client account is over 0.000000 ( limit 0.0000 )

```

5. Inbound traffic is prohibited

In case option '*Inbound traffic allowed*' in *Carriers* tab is not set for the carrier, simulation log will end up without routes list:

```

----- STAGE 1: looking for client -----
client searching status - SMS channel id 16474, SMS POI id 15297
Client SMS POI id <15297>, valid 2017-08-13 00:00:00 - 2030-12-31 23:59:59
Client SMS channel id <16474>, enabled - 1
Client product id <12363>, mode (2) <Client, bill by messages, include vendors with segment billing>, retailBil
<1>
Client account id <10942>, balance 0.0000, limit <no limit>
Client operator id <3165>, inbound allowed 0, trusted - 1

```

6. No exchange rate for the account currency

In case there is no exchange rate between account's currency and system currency (in *Reference books* >> *Currency exchange rates*), simulation log will end up without routes list:

```

----- STAGE 1: looking for client -----
client searching status - SMS channel id 16474, SMS POI id 15297
.....
Cannot find client account currency NEW_CUR
Cannot find client account currency NEW_CUR

```

7. No MCCMNC for the specified B-number

If there is no corresponding record of MCC/MCCMNC (which is effective at current date) in *e.212/e.164 reference book editor* for destination address, there will be no routes as well:

```

----- STAGE 1: looking for client -----
.....
ANI prefix tags not found
Cannot find MCCMNC for DNIS <7910>

```

8. Client rate is filtered by Sender ID or dial code

Client rate search uses the following logic:

- 1) MCCMNC + sender ID
- 2) MCCMNC + dial code
- 3) MCCMNC + no dial code
- 4) MCC + sender ID
- 5) MCC + dial code
- 6) MCC + no dial code
- 7) Rest of world MCC (777 by default)

So, for example, if client product has rates for MCCMNC 250001 and dial code 'Facebook' (which is treated as Sender ID) and no other rates for the same MCCMNC/MCC, then the routing will fail and reject the attempt:

```

----- looking for client rates -----
Client product chain - 12363, 10048, mode - longest match
  Check E212 <250001>, dialcode <Facebook>, prod 12363, rate ID 237822/cost 0.50000 - skipped as
  filtered by rate dialcode
  .....
```

9. Client rate is not found

In case there are no client rates for DNIS (or rate end/start date is older/newer than simulation *target time*/start date), simulation log will look like:

```

.....
----- looking for client rates -----
Client product chain - 12363
  Cannot find client rates for MCCMNC <310>
  Check MCC <777> - Rest of the world
  Cannot find client rates for rest of world MCC <777>
Searching POI list and checking vendor product billing mode:

ANI prefix tags not found
No rates found for client product 12363 and its parent products, MCCMNC <310>
No rates found for client product 12363 and its parent products, MCCMNC <310>
```

10. Vendor product belongs to client's carrier

In case carrier has a client and vendor products (under the same account) with rates for the network, vendor's rate will not be checked - and vendor cannot be selected to routing:

```

----- looking for vendor rates -----
.....
Vendor ID 14 is a client, skipped
.....
```

11. Vendor channel is disabled

Vendor cannot be selected for routing in case all its channels are disabled:

```

----- looking for vendor rates -----
.....
```

Product 10027, SMS POI 12135, SMS channel 12963 is disable, skipped
.....

12. Vendor SMS POI is outdated

Vendor cannot be selected for routing in case its SMS POI is not active:

----- looking for vendor rates -----
.....
Product 10265, cost 0.10000, billing mode (M 1-6)
 SMS POI 10040 is obsolete, skipped
.....

13. Billing option incompatibility

In case for client's product 'SMS billing option' (Products tab) is specified as 'Bill by messages, exclude vendors with segment billing' and vendor's product has 'Bill by segments' option, the vendor's product will be excluded from routing:

----- looking for vendor rates -----
.....
Vendor product 13828 is in segment billing mode, incompatible with client product billing mode, excluded
.....

14. Vendor balance limit is exceeded

Vendor cannot be selected for routing in case its balance exceeds specified 'Out credit limit' in Agreements tab (if system setting 'SMS vendor credit control enabled (1 - yes, 0 - no)' is set to 1):

----- looking for vendor rates -----
.....
Vendor account for product 10185 is over 109057.900000 (limit 500.0000)
.....

15. Vendor agreement is outdated

In case 'End date' of vendor's agreement is older than current date (and time) - the vendor's product will not be included to routing list (note: date '1970-01-01' is specified in the log as routing module cannot find any suitable agreement):

----- looking for vendor rates -----
.....
Vendor account for product 10942 is outdated, valid from 1970-01-01 03:00:00 till 1970-01-01 03:00:00
.....

16. Outbound traffic is prohibited

In case option 'Outbound traffic allowed' in Carriers tab is not enabled for vendor, its product will not be ignored:

----- looking for vendor rates -----
.....

Vendor ID 3202 - **outbound traffic prohibited**
.....

17. Blocked rate

In case vendor's rate has BLOCKED marker in *Rate note* field, vendor's product will be skipped from routing:

```
----- looking for vendor rates -----
.....
Checking for BLOCKED rates:
mccmnc <777>, prod id 13095, rate id 231783, value 0.10000 - BLOCKED, skip product
.....
```

18. Block rule

If there is a suitable routing rule with 'Type': *Block*, all routes (or specific ones in the block rule) will be filtered:

```
----- STAGE 5: looking for routing rules ( 13 routes found ) -----
context DEFAULT, rule id <12724>, type BLOCK, prio 100 - selected
route 0: vendor product id 10027 blocked by product type
route 1: vendor product id 11536 blocked by product type
route 2: vendor product id 10142 blocked by product type
.....
Rules checked/applied: 1/1
routes found but filtered by rules
```

19. Huntstop

Routing rules are being checked starting from the priority 100 (in case of the same priority rule with greater ID is checked first) until 'Next' action of a rule suitable for all filters is 'Huntstop' - and sometimes 'Huntstop' option has taken place before rule in question is checked (so the rule is not checked and vendor list is not formed):

```
----- STAGE 5: looking for routing rules ( 18 routes found ) -----
.....
context DEFAULT, rule id <11863>, type REGULAR, prio 100 - selected
.....
HUNT STOP
Rules checked/applied: 13/1
routes found but filtered by rules
routes found but filtered by rules
```

```
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+
| N | Context | Weight | Vendor | Product | Vendor POI | MCCMNC | ASR | DLR | Rate | ANI
| DNIS |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+
| no valid routes found |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+
```

20. Custom context

Rules with 'Block' type (in context: DEFAULT) are being checked in the first place, after that regular and test rules in the same context are being checked - and in case the needed rule is in different context (and there is no switchover to this context from default one), route list may not be formed as well.

21. Test rule

Rule with type 'Test' may not be chosen due to 'Probability, %' parameter (for example, if it is too low):

```
----- STAGE 5: looking for routing rules ( 18 routes found ) -----
.....
context DEFAULT, rule id <10007>, type  TEST, prio 100 - dropped test rule by prob/rnd 5.00/44.00
.....
```

22. Rule is outdated

In case rule has 'Start date' newer than current date or 'End date' older than current date, the rule will not be checked for routing:

```
----- STAGE 5: looking for routing rules ( 18 routes found ) -----
.....
context DEFAULT, rule id <10140>, type  BLOCK, prio 50 - dropped, rule outdated
.....
```

23. Rule is not active

In case checkbox 'Is active' is disabled, the rule cannot be chosen for routing:

```
----- STAGE 5: looking for routing rules ( 18 routes found ) -----
.....
context DEFAULT, rule id <10141>, type  BLOCK, prio 50 - dropped, rule inactive
.....
```

24. Other filters

In case there are specified patterns (*Content pattern, ANI pattern, DNIS pattern*) or inclusive/exclusive list (*MCCMNC, Client products, Client product names, Vendor products, Vendor product names*), the rule can be filtered and dropped as well:

```
----- STAGE 5: looking for routing rules ( 18 routes found ) -----
.....
context DEFAULT, rule id <12724>, type  BLOCK, prio 100 - dropped by message text filter
context DEFAULT, rule id <10005>, type  BLOCK, prio 100 - dropped by INCLUSIVE client product filter
context DEFAULT, rule id <10140>, type  REGULAR, prio 100 - dropped by DNIS pattern
.....
```

25. Condition is false

In case the condition is false, the choice will not be selected for routing (*note: in case there is no specified condition regarding margin - it is considered as MRG > 0 by default*)

```
----- STAGE 5: looking for routing rules ( 18 routes found ) -----
.....
context DEFAULT, rule id <11863>, type REGULAR, prio 100 - selected
.....
choice 0 selected, type DYNAMIC
cSMSPOI: ASR 0.000, DLR 0.000, ADD 0.000, CER 0.000, count 0
vProd 10027 <oper id 310>, e212 <250> - rate note valid
MRG -0.41625, rates 0.583750-1.000000, RND 0.284442252415
SMS POI ID 11875, ASR 0.000, DLR 0.000, ADD 0.000, VER 0.000, count 0
condition False
.....
```

26. Vendor weight is negative

In case calculated weight of formula is 0 or less than 0, the vendor's product will not be chosen for routing:

```
----- STAGE 5: looking for routing rules ( 18 routes found ) -----
.....
context DEFAULT, rule id <11863>, type REGULAR, prio 100 - selected
.....
vProd 14639 <oper id 5320>, e212 <250> - rate note valid
MRG -0.41625, rates 0.583750-1.000000, RND 0.478281935006
SMS POI ID 17072, ASR 0.000, DLR 0.000, ADD 0.000, VER 0.000, count 0
condition True, weight -0.41625
.....
```

27. Condition is incorrect

In case syntax of condition is incorrect, it will not be parsed - and as result, vendor's product(s) specified in the choice cannot be added to routing (*note: syntax can be checked with 'Check syntax' button*):

```
----- STAGE 5: looking for routing rules ( 18 routes found ) -----
.....
context DEFAULT, rule id <11863>, type REGULAR, prio 100 - selected
.....
vProd 10027 <oper id 310>, e212 <250> - rate note valid
MRG -0.41625, rates 0.583750-1.000000, RND 0.638480866477
SMS POI ID 11875, ASR 0.000, DLR 0.000, ADD 0.000, VER 0.000, count 0
cannot check condition - reason <name 'MRg' is not defined>, skipped
.....
```

28. The vendor channel belongs to a different SMS switch

In case the vendor channel's *Local address* is different than the *Use switch default settings* and is other than the one specified for the simulation task, the vendor's channel is skipped:

```
----- looking for vendor rates -----
.....
SMS POI 12835, SMS channel 13690 local address <127.0.0.1> is unsupported by switch local addresses
['127.0.0.3'], skipped
Product 11437, SMS POI 23804, SMS channel 26057 is disable, skipped
```

20 Appendix 6. Two-way messaging setup

What is 2-way messaging?

2-way messaging is a means of SMS communication that involves sending messages from a short code and receiving responses from end-user devices.

The first part of a 2-way message (for which a response is required) is called **MT** or Mobile Terminated message. It is a regular message (sent **from** your **client**) that arrives from a short code to your System in a `submit_sm` packet and is sent to a **mobile user** through one of your vendors. The System uses the routing scheme created in the [SMS\Routing\Routing rules](#)^[293] interface to send the MT message.

NOTE: For the sake of simplicity, all messages that arrive to the System in `submit_sm` signal are called MTs (mobile-terminated).

The second part of the 2-way message is called **MO** or Mobile Originated message. The peculiarity of this message is that it does not arrive to your System as a `submit_sm`, but rather it arrives to your System as a `deliver_sm`, meaning that the **vendor** sends a reply back to the System (in case the mobile phone user sent a reply to the initial message) as a delivery report that the System treats as a 2-way message. This delivery report does not belong to any message in the System. The switch considers such messages as 2-way ones and checks the MCC of the originator address (the MCC should be specified in the short code reference book), the Destination number (the DNIS that is configured in the short code reference book as well) and the text of the message so this delivery can be sent to the client.

The originator address of the MO is the number of the mobile user that sent the response to the initial message. The B-number is the short code **from** which the initial message (MT) was sent.

In order for Alaris SMS Platform to correctly route the second message (MO), the System should have a few parameters set differently from the usual SMS processing. In this section we will go over all the settings you need to perform in order for your System to be able to successfully process 2-way messages.

Important information

- It is strongly recommended to create separate products for 2-way messaging for the client and vendor as by default the switch will unconditionally set the incoming `deliver_sm` service type as MO, the same is done on the client's side. Similarly, it is required to create 2-way client and vendor SMS POIs with the MO value in the *Service type* field to have correct billing, otherwise MO messages will not be defined and will appear as undefined in [SMS\Analytics](#)^[213].
- For proper billing, 2-way rates must be created with the MCC of the originator address and the dial code which is usually a short code.

NOTE: Instead of the MCC of the originator address, the MCC "Rest of world" can be used (the default value is 777 and can be changed in [Administration\System settings\SMS routing](#)^[69]). If no appropriate records are found, the message will be routed to the MCC "Rest of world" irrespective of the originator country.

- There are no routing rules for 2-way messages in their usual way, the short code reference book records take this role in 2-way messaging setup.

Configuration

The configuration process consists of four steps:

- Step 1 is configuration of the **client** side in the *Carriers* section.
- Step 2 is configuration of the **vendor** side in the *Carriers* section.

- Step 3 is configuration of [SMS\Reference books\Short code reference book editor](#)^[276].
- Step 4 is adding SMS rates.

Step1. Client side configuration

1. Create a carrier for the client side (an existing carrier can be used)
2. Add a new client account (an existing account can be used)
3. Add a new client agreement (an existing agreement can be used)
4. Create a **dedicated** product for 2-way SMS processing – for example, *2way-client*
5. Create an SMS channel or use an existing one
6. Create the SMS POI with Service type set as **MO (this is mandatory for client channel and product search)**. This POI will be used for routing of Mobile-Originated (MO) messages

Step 2. Vendor side configuration

1. Create a carrier for the vendor side (an existing carrier can be used)
2. Add a new vendor account (an existing account can be used)
3. Add a new vendor agreement (an existing agreement can be used)
4. Create a new product - for example, *2way-vendor* (an existing product can be used)
5. Add a new SMS channel (an existing channel can be used)
6. Again, create a new SMS POI. In the *Service type* field specify *MO*. This is required.

NOTE: Any *Service type* value received from the vendor will be replaced by *MO*.

Step 3. Creating records in the *Short code reference book editor*

In order to create short code records, proceed to the [SMS\Reference books\Short code reference book editor](#)^[276].

Suppose you send messages to the Russian Federation.

Suppose the short code from which Mobile Terminated (**MT**) messages are sent is *12345*

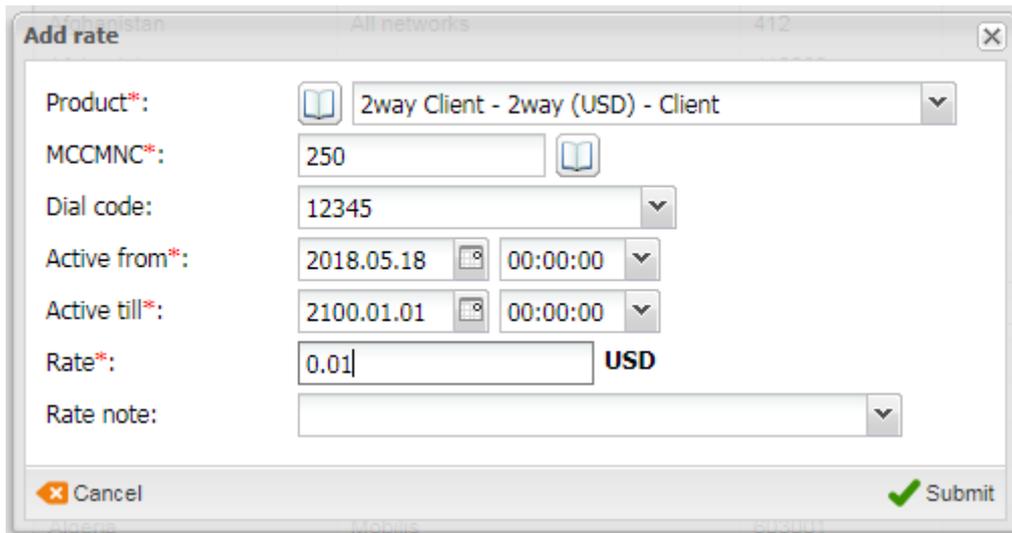
At this point you should already have a client product named *2way* for the 2-way client carrier.

Create a new record with the following parameters:

- **Product:** *2way Client – 2way*
- **MCC** (Russia): *250*
- **DNIS:** the short code from a short code provider – in our example, *12345*. It will be used as the B-number in the MO message
- **Text pattern:** the Short code reference book can route MO messages based on their content. This may come handy when there is a need to route only messages with specific text. The Text pattern field supports python programming language regular expressions and by default is filled automatically allowing any message content.

Step 4. Creation of rates

NOTE: Creation of rates is necessary to enable billing of the 2-way messages. If no billing is required, you can skip this step.



Adding the rate for 2-way messaging

Proceed to [SMS\Rates\Rate editor](#) [244]. Click [Add rate](#) and complete the following parameters as illustrated in the figure above:

- *Product*: select the client product created for 2-way messaging setup. In our example, *2way Client – 2way*
- *MCCMNC*: enter the MCC (without the MNC as it is cut from **MO**). In our example, *250* for Russia
- *Dial code*: specify the short code - DNIS - defined in [SMS\Reference books\Short code reference book editor](#) [276]. In our example, *12345*
- *Active from/till*: set the effective period for the rate
- *Rate*: specify the rate that the vendor will be paid for the message

With these steps completed, your System is ready to process 2-way messages. In this particular example, if a MO message comes from any Russian number (MCC 250) to short code 12345 it will be routed to *2way Client - 2way (USD) - Client* product and billed according to the rates set up in the System.

If you still have questions on the 2-way message processing, feel free to contact the Alaris technical support team.

NOTE: To configure 2-way messaging over HTTP, use the markers listed in [Allowed marker names for outgoing HTTP requests](#) [425].

20.1 Configuring MO message sending for Twilio

The System supports MO message sending for Twilio. To enable it, perform the following configurations:

1. Create a vendor HTTP channel ([Carriers\SMS channels](#) [120]) with the following parameters:
 - *URL template*: `http://service_IP_address/api?ani=$ani&dnis=$dnis&username=$username&password=$password&message=$text&command=submit&serviceType=$serviceType$`
 - *Login*: twilio
 - *Password*: twiliopass
2. Create a POI with *Service type* = MO ([Carriers\SMS POI](#) [133]).

3. Check that the appropriate short code is present in the short code reference book to handle the MO ([SMS\Reference books\Short code reference book editor](#)^[276]). Add the code to the reference book if necessary. See also the [Alaris YouTube](#) video.

21 Appendix 7. Frequently asked questions

The section contains frequently asked questions about configuration and usage of Alaris SMS Platform.

21.1 General

1) What does the option 'Is test' in Carriers mean?

The option is intended to highlight test carriers - [TEST] prefix will be added to the carrier name, also traffic of such carriers will be highlighted orange in the *Analytics* section. Similar option 'Is test' in *Products* interface affects product name only, also it may affect routing in case it is based on product types ('Client/Vendor product names' filters in *Routing rules*).

2) What does the option 'Self signed-up' mean?

The checkbox is automatically ticked when a client is registered in the Wholesale portal/Alaris Campaign Portal - these clients will be shown green in the *Analytics* interface.

3) How do I limit the client balance so the client cannot send messages if the balance is negative?

For the limitation it is recommended to use the 'In credit' option in [Carriers\Agreements](#)^[11] - in case the option is set to 0, the client is called 'Prepaid' and can send traffic only if the balance is positive. If the option is empty, the client is called 'Trusted' and can send traffic even if the balance is negative. To limit the balance threshold, the 'In credit' parameter can be set to any positive value - e.g., if it is set to 200, then the client can send traffic until the balance reaches -200 (in the account currency) - the client will be called 'Postpaid' in this case.

The same works for the vendor side in reverse: it is possible to send traffic to the vendor until their balance reaches 200 (in case the System setting 'SMS vendor credit control enabled (1 - yes, 0 - no)' is set to 1). If the balance is positive, the System owner is in debt to the partner, otherwise (in case of negative balance), the partner is in debt to the System owner.

4) How do I configure sending credit alerts in the System?

For clients with a non-empty or non-zero credit limit, the following configuration must be made:

Set credit thresholds for a specific account and/or in the *System settings* ([Administration\System settings\Financial module](#)^[45])

NOTE: Just one threshold may be specified but it has to be the first one, not the last or in the middle of the list.

'Account alert emails' should be specified, and additional email can be specified in a system setting 'Credit and balance alarms default email (null - do not use it)'.

If the alerts must be sent to the client's email, the *Send alarms* checkbox should be ticked (in [Administration\Users](#)^[9]). Besides, the System setting *Send credit and balance alarms to customer* (0 - no, 1 - yes) should be set to 1.

If the alerts must be sent to account manager, the System setting *Send credit and balance alarms to account manager* (0 - no, 1 - yes) should be set to 1.

For clients with non-zero credit limit, the System setting 'Send balance alerts for accounts with non-zero credit limit (0 - no, 1 - yes)' has to be additionally enabled to receive balance alerts (if the balance thresholds are configured).

5) What does the field 'Parent product' in [Carriers\Products](#)¹⁰³ mean?

The field serves to specify a product whose rates will be inherited by the initial product. The goal is to keep generic rate plans which are offered to many clients in one parent product - it is a convenient way to add or modify rates only in one product so they can be changed for other products as well.

For example, product A, which has active rates 0.3 for MCC 250 and 0.25 for MCCMNC 222002, is a child of parent product B (and this product contains rates 0.2 for MCCMNC 250001 and 0.26 for MCCMNC 222002 with dial code 123) - so the product A will have 4 rates in total:

0.3 for MCC 250
0.25 for MCCMNC 222002
0.26 for MCCMNC 222002 (with dial code 123)
0.2 for MCCMNC 250001

The inheritance mode also depends on the System setting *Rate inheritance mode* (the setting is also available on the product level when *Parent product* is filled in) which shows how rates will be searched for routing. If the value is 1 (*longest global match*), the System searches for the most detailed rate (in terms of both MCCMNC and dial code) in the parent and child product and uses it to charge the client. When the value is 0 (*longest match at child*), the System first searches for the child product and if there is no suitable rate (for either MCC or MCCMNC), it searches for the parent product. Additionally the logic can be checked in the manual ([Appendix 3. Rate search logic](#)).

Suppose that the parameter is set to 0 - if a message is sent to 250001, the rate 0.2 will be selected; if a message is sent to 222002 from number 123456789, the rate 0.26 will be used. If the setting is set to 1 and a message is sent to 250001, the child rate for MCC 250 (0.3) will be used due to the setting's value.

6) What can be affected if I change the product name (e.g., from *Direct to Wholesale*)?

The change of a product name will affect routing only in case the routing rules use filters such as '*Client/Vendor product names*'.

7) Is it possible to change the account currency?

Since it will affect all current rates and previous finance information, it is preferable to close the old account (by setting the *End date* of the corresponding agreement to, for example, 01.01.2019 - both the agreement and the account will be inactive starting from 01.01.2019) and create a new one in the necessary currency (and also create all related entities such as agreement, product, channel, and POI).

8) How does the System handle multiple currencies? Where does the exchange rate come from?

To add new currency is possible in *Reference books >> Currency exchange rates* ('+' button of '*Existing currency*' filed), after that it will be possible to create an account in the currency. Also the exchange rate has to be added (*Exchange rates* table of the same *Currency exchange rates* interface), it can be defined manually or fetched automatically from a set of pre-defined sources - the System setting *Currency update source* support following values: ECB, LCB, BNR, NBU, NBRB ([European Central Bank](#), [Lithuania Central](#)

[Bank](#), [National Bank of Romania](#), [National Bank of Ukraine](#) and [National Bank of the Republic of Belarus](#) correspondingly).

9) Where do I check the content (message text) of processed traffic?

Message text is contained in EDRs, which can be found in *Analytics* (*EDR export by row in top grid* option), in *EDR export tool* and in *Reports* (report *EDR Export (SMS)*). It is recommended to specify at least one of the filters (*client message ID*, *sender ID*, *destination address*, etc) while using the report, otherwise its launching may take a lot of time.

10) How many days are EDRs stored in the system?

The period is defined by 2 system settings - *Active EDR day count* and *Archive EDR day count*. The first one shows period of data available from the main interfaces (the web interface, REST API, etc.), the last defines the period of data which can be restored by request.

NOTE: An increase of the values has to be approved with the technical support team as the operation may require additional disk space.

11) What is a trace/dump/pcap file? Where in the System can I find trace files? How do I use the Trace analyzer tool?

A trace file contains information about network packet exchange between servers (the client's equipment and the switch or the switch and the vendor's equipment). In most cases, trace files on TCP (transmission control protocol) level or SMPP level are required for analysis of situations. TCP packets may show information about network issues. Once the TCP connection is successfully established, the switch waits for the bind command from a client (SMPP level). Usually traces are opened by the Wireshark program - a lot of different [tutorials](#) can be found on the [Internet](#), for example [this one](#) or [this one](#).

The [Administration\Trace analyzer](#) ^[89] interface serves to take traces in the System. The left panel contains task parameters that must be filled in by user. When they are set, click *Run* to put the task in the queue.

Once the task is ready, the file can be downloaded by the 'download' hyperlink. The task parameters 'Carrier', 'Start/end date offset' are optional, the former parameter is intended to filter IP addresses by the carrier name (once it is specified, the *Hostname* drop-down list contains only IP address(es) of the carrier's channels), the latter two specify the offset for *Start/end date* fields for easier specification of the filters, so for example, if the *Start date offset* is set to -4, the *Start date* will be automatically change to current hour-4.

The *Hostname* field has to contain the carrier's IP address. The *Start/end date* have to be set to a period for which traces should be taken (it is recommended to specify a short period - 1-2 hours).

NOTE: Tasks are handled consistently so it is preferable to launch a new task once the previous is ready, additionally they are launched only for the past period. Trace files are stored for 3 days by default (to increase the period, please contact the support team).

12) Why does the 'e.212/e.164 reference book editor' contain non-actual data?

The System contains a pre-uploaded reference book which is intended for initial stage of the System configuration and doesn't contain actual information. To keep it up-to-date is a responsibility of the System owner. Single changes can be made through [SMS\Reference books\e.212/e.164 reference book editor](#) ^[280], modification in bulk can be performed through [SMS\Reference books\e.212/e.164 reference book import](#) ^[282].

Our team can also provide an up-to-date reference book, however this question must be discussed with the account manager as this operation is a payable one.

13) Why are there 2 grids in e.212/e.164 reference book editor?

The System works as follows: for each incoming message a destination address (B-number/DNIS) is taken and matched (longest match logic) with an MCCMNC (MCC) (in accordance with the bottom grid of e.212/e.164 reference book). If there is no suitable MCC (MNC), the message will not be routed since the System needs to have information about the e.212 code to search for rates and routes. The *LOT* field defines the level of trust – that is, which record (in case of the same records for the MCCMNC+dial code with an overlapping period) should be more 'trusted' and used in the first place. The top grid defines the *Country* and *Network name* for the MCCMNC which will be used in rates and EDRs.

14) Is there any difference between a 5-digit MCCMNC and a 6-digit one? Why does the System use 6 digits while some partners use 5 digits?

Each country uses its own format of e.212 codes - 5-digit MCCMNCs or 6-digit MCCMNCs, the difference is in addition of a leading zero to MNC if it contains 2 digits (for example, 250 01 >> 250 001). For convenience and unification, the System uses a single 6-digit format. Unification happens in the [SMS\Rates\Rate editor](#)^[244] interface as well as in [SMS\Rates\Rate import](#)^[258]. In case a client requires to send them rates in the format of 5-digit MCCMNCs, the configuration should be done in [SMS\Rates\Rate export](#)^[257] >> *Column settings*. Instead of the *MCC and MNC or MCCMNC* columns, the column *MCCMNC5* should be defined as the *System column*. The system allows creating several presets (formats) for rate export - on the contract company, carrier or product level.

15) How does manual testing of the Test system work? Which test platform is preferable?

In terms of functionality many test platforms offer almost the same - checks of actual message delivery and its properties: message text, sender ID. The system is integrated with [CSG](#), [TelQ](#), [TestMySMS](#), [Remote365](#), [iTest](#) and [Testelium](#) systems. Also there is a possibility to use manual testing. It involves sending test messages to a specific vendor with predefined parameters (sender ID, message text, destination address) without the routing stage (so there is no need in routing configuration and there are no balance/rate checks). Note that translation rules are not applied to test messages, also the values of ToN/NPI are set as follows: *dstTon/Npi* = 1, *srcTon* = 5 in case the sender ID contains different symbols apart from digits, otherwise (only digits) - *srcTon* = 0.

Note that the vendor POI ID that is being tested is added to the beginning of the message text during manual testing. The prefix cannot be removed - and actually can be a help to define which of the providers has delivered the message when bulk message sending is being tested (the same text + destination address).

16) What is Route testing client and how does the Test system work?

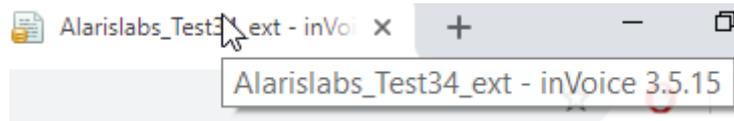
Test messages are sent from the interface through a special carrier added in the System - usually the configuration for the Test system is performed by the support team. This carrier's ID is configured in the System setting *Route testing client*. Note that change of the setting has to be followed either with the change of the test channel(s) or with SMS switch restart - please contact the support team.

17) What does the carrier switch_monitoring in [SMSAnalytics](#)^[213] mean?

It is an internal tool which sends a test message to check operation of the switch and routing module and traffic flow. By request these messages can be hidden from *Analytics* but only for a future period.

18) How do I check the System version?

If you point your mouse cursor to the browser tab with the open web interface, you will find the System version, as illustrated below



19) Where can I find all markers available in the System?

The markers can be found here: [Markers](#)

20) How do I remove the 'License will expire in n days' message?

All license questions have to be discussed with the account manager directly - the questions are not discussed by the support team either tickets or assistance chats since it is outside their competence.

21) How do I avoid 'this site is not secure' message when I log in to the web interface and/or portals?

To remove the message, an SSL certificate should be purchased (the certificate may be registered for any domain name assigned to the IP address where the web module is located or to the web domain name which is already used to access the web interface). Once it is registered, it should be provided to the support team (with the corresponding key). To apply the certificate, restart of the web module is required (which leads to web unavailability for about 1-2 minutes). Note that some providers give bundles (set of certificates in order for the browser to accept it as trusted). They should be provided for installation as well. For certificate generation most providers require CSR (certificate signing request). For hosting clients it has to be generated by the support team - and the following information should be provided to the team: *Common Name (domain name or wildcard), Organization, Organization Unit, City or Locality, State or Province, Country, Passphrase (Optional), E-mail*. Once the CSR and the key is generated, they should be sent to the registration center for further purchase of the certificate.

22) Is there a manual for REST API? How do I use it?

There is REST API available in the system which offers a lot of methods of data receiving and managing. There is no dedicated manual for REST API but descriptions and possible values for every method are provided in the methods themselves (once you click on a method, it is possible to switch between *Model* and *Example value*). To use the API, a user has to be created in the main web interface under the *System Owner* carrier (to have access to all methods) or under any carrier but with granted roles (for example, if a user should be able to check all rates, the roles *View all data* and *SMS rate view* have to be granted). Authorization for REST API is possible via [authorization header](#) (login/password of the user) or via the method *GET/auth* ([but first the basic auth should be done](#)) - once the [token](#) is received, [it can be applied](#) to any method (the token expires in an hour or in 2 hours starting from version 3.5.13).

21.2 SMS channels/SMS POI

1) What is the bind type?

It is the type of connection in accordance with which requests will be handled. Possible values are *Auto*, *TX* (transceiver), *RX* (receiver), *TR* (transceiver). For client connections it is recommended to specify the *Auto* type, and for vendor ones - *TR*. *TX* means that it will be only possible to send packets via the channel, and *RX* - only to receive them.

2) Why should SMS POI be created for a channel?

POI is a point of interconnection which links the SMS channel and product so it is possible to send traffic of different levels (wholesale, premium) via the same channel. Creation of POI forms a link between the channel ('gateway') and product (level of service).

3) Is it possible to create both a client and vendor direction channel?

A channel with the *TR* type has to be configured in this case - the SMS switch will be waiting for incoming packets on the IP address specified in *Hostname* and will send outgoing requests to the *Hostname* and to the port specified in the *Port* field. As a result 2 binds (at least) will be established - one bind request must be received from the client side and the other will be established by the SMS switch with the vendor side. Note that 2 POIs with client and vendor direction have to be configured for the channel.

4) Is it possible to use the same login and password for different channels of the same direction?

Yes, it is possible in case these channels have different IP addresses - since the login/password are auth information. However, if the channels have the same IP address with the same credentials, it will not be possible to understand through which channel the binds should be established.

5) Is it possible to create one channel with multiple IP addresses?

The *Hostname* field supports masks only for the client side - so it is possible to specify the field in the format *<IP>/mask* (for example, for 65.98.108.111/29 the range will be 65.98.108.105-65.98.108.110). If the field is set to 0.0.0.0/0, all requests from any IP address will be processed by the SMS switch (in case the login/password pair is suitable – for HTTP connections, and the login, password and system type - for SMPP connections). If IP addresses are from different ranges, *n* channels should be created (where *n* is a number of these IP addresses).

6) Is it possible to use the domain name in a client channel?

Domain names are only allowed for vendor channels since the SMS switch needs to check if the IP address from an incoming request is allowed (if the SMS channel with this IP address is created in the System) and (as a result) it will require to resolve domain names every time.

7) What is the difference between the channel 'System type' and POI 'Service type'?

System type is a field used to authorize an incoming bind request along with the login (system ID) and password. In case the client sends bind requests with a different system type, the SMS switch will reject them. *Service type* is used in submit packets - if a client sends submits with a different service type, the SMS switch will reject such requests (the EDR status will be SRC POI NOT FOUND), these attempts will be available in the [SMSAnalytics](#)^[213] interface under the *Undefined* category (since a client cannot be defined due to incorrect service type).

8) Is it possible to limit the number of binds for a client channel? What is the maximum number of client sessions?

At the moment the limitation is only possible for vendor channels ([Carriers\SMS channels](#)^[120] interface >> *No. of connections* parameter). The default value for vendor channels is 0 (which equals to 1 session). The maximum number of client sessions is not limited.

9) How do I send parts of a concatenated message to the same vendor in case of routing rule that shares traffic between vendors?

To solve the situation, enable the option *Stateful concatenated messages processing* in a client channel or System-wide. The checkbox enables sending segments of a concatenated message using the same list of routes (by default the parts may be routed and sent through different vendors). To enable the feature for all client channels, activate the parameter *Enable system-wide stateful concatenated messages processing* (0 - no, 1 - yes) in [Administration\System settings\SMS](#) ^{12b}.

The logic of stateful processing is as follows: once all parts of a segmented message are received, the message text of these parts is joined (in accordance with the segment numbers) and routing for the whole message takes place: responses for all submits are sent to the client side and the corresponding submits are sent to the vendor.

If all responses are unsuccessful, the switch sends requests to the next-in-line vendor (if any) or sends a delivery report with the UNDELIVRD status to the client (to each segment). In case of both successful and unsuccessful responses, delivery reports with the UNDELIVRD status are sent (to each segment) and further routing does not happen.

In case of a submit timeout from vendor side, the next-in-line route will be tried for message sending - and if there is no next route, the UNDELIVRD report will be sent. If the vendor responses are successful for all submits, the switch waits for delivery reports. In case all returned reports are successful, they are returned to the client. If there is at least one unsuccessful delivery report (for example, it has not been received within 48 hours), it will be sent to the client for all message segments.

NOTE: Rerouting based on delivery reports does not work for concatenated messages with the enabled option. Additionally, delays between the client submit and response to it may happen in case of the enabled option (due to the period of waiting for all segments). If all segments are not received within 10 seconds (default value, can be changed in the internal configuration), the segments will be processed as a single message (the behavior can be changed as well in the internal configuration so the segments will be rejected with a failed submit response - ESME_RSUBMITFAIL). To minimize delays between the client submit and response it is recommended to use the quick response mode. (To enable it, contact the Alaris technical support team and communicate the code BZ22555). However, in this case clients will first receive successful responses even if the message could not be routed. Then an UNDELIV report will be sent for each message segment.

10) What is the difference between 'Enquire_link_resp timeout, sec' and 'Timeout' fields for vendor direction channel?

Enquire_link_resp timeout, sec parameter specifies the period within which the vendor must respond to our enquire link. Otherwise, 2 more attempts to send the enquire link will be made. If the vendor does not respond to 3 enquire links, in 30 seconds after sending the last one, the TCP connection will be reopened and a new bind command will be sent. The default value is 30 seconds.

Timeout defines period within which the vendor has to respond to submit request (otherwise the message will be sent to the next-in-line vendor or will be rejected with internal SUBMIT_RESP TIMEOUT status) - by default 30 seconds as well.

NOTE: In the [Carriers\SMS channels](#) ^{12b} interface it is not possible to specify the rebind interval - delay between successive bind requests in case the vendor does not respond to our attempts to establish a TCP connection, does not respond to binds or responds with an error, it is configured in the internal configuration. By default it is 10 seconds.

11) What should be specified in the 'Local address' field?

The field defines the IP address to be used for sending requests to the vendor. Since the field is needed in case of 2 or more switches, it must be left as *Use switch default settings* if only one SMS switch is installed. For VPN connections (for the vendor side) the field must be set as the encryption domain. Although the field is hidden for client channels, it is still used for the client direction in case of 2 or more switches. If the request is received to the first switch while the channel is created on the second switch, the request will be rejected (due to an unknown IP address). To change the field for the client side, contact the support team.

12) What are 'Allowed src\dst NPI\ToN' settings? Should they be changed?

The settings specify allowed values of the source or destination ToN (type of number) and NPI (numbering plan indicator) for messages which can pass through the channel. By default all values are allowed. It is recommended to change them only in case the vendor clearly specifies its limitations. Otherwise changing the values may lead to traffic rejection.

13) Is it possible to limit the TPS? What are the recommended values? Is the limitation applied to one bind or to all binds within the channel?

TPS can be limited in the [Carriers\SMS channels](#)^[120] >> *Client\vendor capacity* field. The limitation is applied within the channel. Note that if the buffer value (*Client/vendor overflow buffer size*) is not set, messages will be rejected when the capacity is reached.

14) Are there any default values for capacity parameters i.e. client\vendor MPS?

MPS for the client side is not limited by default, however the overall capacity is limited by routing modules. The performance depends on the routing scheme (how it is optimized). If the scheme is properly separated by contexts based on products or countries, one routing module can handle ~ 200-300 requests. Additionally, the SMS switch can process up to 1000-1500 requests per second (the maximum performance depends on server hardware). For the vendor side there is a default restriction set System-wide ([Administration\System settings\SMS switch](#)^[70] >> *Default vendor window size*).

15) How do I check the current MPS?

In the *Reports* interface there are reports 'MPS per client (SMS)' and 'MPS per vendor (SMS)' that show the average MPS and peak MPS for a predefined period (previous hour by default).

16) What is 'Overflow buffer size' and 'Window size'? What is the difference and what are maximum values for it? What happens if the buffer is reached?

Overflow buffer size defines how many messages may be stored in the buffer if the *Capacity* limitation is reached (if the value is exceeded, messages will be rejected). If the *Capacity* limit is set and reached but the *Overflow buffer size* is not set, new messages will be rejected as well. If the buffer is not empty and new incoming messages are received, the System uses the FIFO logic: if the buffer already contains messages, they will be sent out first (in incoming order) and only then new messages will be processed.

Window size specifies how many messages (without the vendor's response) can be left pending until the message is sent to the next route or is buffered. For example, if the *Window size* is set to 10, it means that 10 pending messages are allowed for the vendor (10 messages without a response from the vendor side to our submit requests). If the *Vendor overflow buffer size* is set to 0, the 11th message will be rejected (if the vendor fails to respond within the submit timeout or the vendor does not respond at least to one of the pending messages). Otherwise the message will be placed in the buffer.

If the settings are not specified on the channel level, the System-wide values are taken ([Administration\System settings\SMS switch](#)^[70] >> *Default vendor overflow buffer size* and *Default vendor window size*). Maximum

values can be calculated based on server specifications (300,000 messages in the buffer require approximately 1 GB of RAM).

17) Is it possible to check how many messages in the buffer are there at the moment?

In the [Carriers\SMS channels](#)^[120] interface the columns *MPS buffer* and *Window buffer* display the number of messages in a corresponding buffer (the feature is currently relevant for SMPP connections only).

18) How do I enable pushing delivery reports or MO messages to client? How do I set up callbacks?

The parameters *DLR push URL template* and *MO push URL template* ([Carriers\SMS channels](#)^[120] tab) serve to set up deliver/MO callbacks respectively for client HTTP channels. A client must provide the format in which it is waiting for MO\DLRs as well as where the callbacks must be sent to. The System supports the following markers: *\$message_id\$*, *\$delivery_status\$*, *\$result_code\$* (err code from deliver_sm), *\$mccmnc\$* (from the reference book), *\$delivery_time\$* (received in vendor's deliver_sm), *\$system_delivery_time\$* (date and time when deliver_sm from vendor was received), *\$message\$* (text from deliver/MO), *\$ani\$* (sender ID), *\$dnis\$* (destination address).

Example:

```
curl -d '{"message_id" : "$message_id$", "ani" : "$ani$", "dnis" : "$dnis$", "message" : "$message$"}' -H "Content-Type: application/json" -X POST https://for/example/
```

```
curl --data '{"message_id" : "$message_id$", "ani" : "$ani$", "dnis" : "$dnis$", "message" : "$message$"}' http://for/example2/
```

```
curl -d "message_id=$message_id&ani=$ani&dnis=$dnis&message=$message" -X POST http://another-example.php?u=MgbnbvcTE=
```

```
curl "http://blabla/status.php?message_id=$message_id&from=$ani&eventType=sms&text=$message&time=$delivery_time&delivery_status=$delivery_status"
```

19) How do I configure client HTTP connection?

The HTTP API description is available [here](#)^[420].

All entities (including an SMS channel and a POI) must be configured as usual - note that it is impossible to specify a protocol for client connections since there is no restriction for the client side (clients can establish SMPP connections as well as HTTP ones).

A client should send requests in the following format:

```
http://<switch_IP>:8001/api?username=<username>&password=<password>&ani=<ani>&dnis=<dnis>&message=<message>&command=submit&serviceType=<serviceType>&longMessageMode=<longMessageMode>
where <username> and <password> are the login and password of the client channel, <serviceType> is the POI's service type, other placeholders have to be replaced by actual values, for example:
```

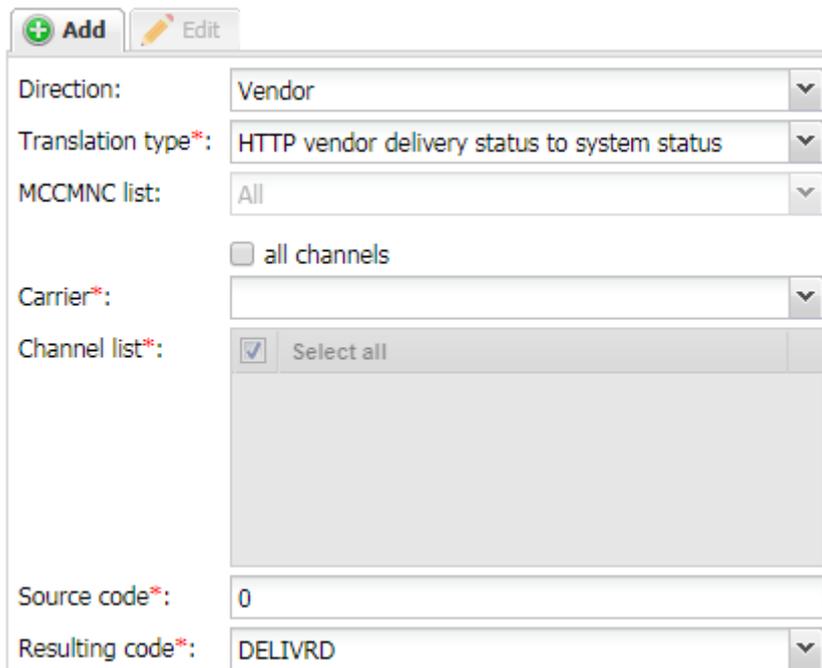
```
http://1.1.1.1:8001/api?username=test&password=pass&ani=7656883&dnis=7673681&message=text&command=submit&serviceType=&longMessageMode=cut
```

The request (and message text in particular) must be urlencoded.

20) How is it possible to connect with an HTTP vendor?

Since the SMS switch has to understand the vendor's responses and learn how to handle them, the vendor's API (with examples of message sending, status receiving, specification where the message ID should be taken from in response and which response should be considered successful) must be provided to the support team for further implementation in the System. Additionally, credentials (such as login/password) and allowed message parameters (allowed destination address and sender ID, message text that can be used) for tests are required as well as information in regard how the message status is changed (and method of the change - query or callback).

NOTE: In order for a delivery report to be applied, the status must be specified in the *Final SMS status* parameter ([Carriers\SMS channels](#)^[120]). Several statuses must be set pipe-separated. Example: ACCEPTD|accepted. Thereby if a received status is not in the list, it will not be applied to the EDR. In some cases providers can return vendor-specific statuses (e.g., not DELIVRD but code 0 instead of it), so if the standard value must be sent to a client, a translation rule ([SMS\Routing\Translation rules\Error and status codes](#)^[326]) must be configured.



The screenshot shows a configuration window for a translation rule. At the top, there are 'Add' and 'Edit' buttons. The form contains the following fields:

- Direction:** Vendor
- Translation type*:** HTTP vendor delivery status to system status
- MCCMNC list:** All
- all channels
- Carrier*:** (empty dropdown)
- Channel list*:** Select all (checked)
- Source code*:** 0
- Resulting code*:** DELIVRD

Translation rule (Error and status codes)

21) How do I check the channel status?

The status of a channel can be checked in [Carriers\SMS channels](#)^[120] in the *Status* column. In case of two or more simultaneously established sessions, the hyperlink *View sessions* will be available, showing the status of the sessions.

22) Why is the channel status not shown?

The channel status can be empty if:

- No corresponding SMS POI is created
- The *Enabled* option is not selected
- The port is not specified (it may be an optional field in old versions)
- It is an HTTP connection (it is normal behavior)

If everything is set up, trace files for further check can be taken in the [Administration\Trace analyzer](#)^[89] interface

23) What is Rebind needed status?

The status means that the vendor side has responded with an error to bind requests. This can be due to incorrect credentials (System ID - which is the login, password or System type). To double-check the situation, take a trace file ([Administration\Trace analyzer](#)^[89]) specifying the partner's IP address.

24) If an SMS POI is deleted, how will it affect the System?

Since analytics is based on POI ID, once a POI is deleted and EDRs are recalculated, it will affect the carrier's balance and all processed traffic (it will be shown in the *SMS/Analytics* interface as *Deleted partner* before recalculation and as *Unknown partner* after recalculation).

25) Is it possible to find all changes for a channel\POI?

Changes are stored in the database for 30 days (by default; the value is defined in the parameter *Log store period, days* in [Administration\System settings\Common](#)^[35]) and can be checked in the reports 'SMS channel change log (Administration)' and 'SMS POI change log (Administration)' correspondingly.

26) Is there any restriction by message length? What happens if it exceeds the allowed number of characters?

160 bytes are allowed for 7-bit character sets (datacodings 0-3), 140 - for 8-bit character sets (datacodings 4-7,) and 70 - for Unicode messages (DC 8). If a long message is sent over SMPP, it will be sent to a vendor as it was received from a client (it is possible to restrict long SMPP messages by enabling the option *Reject too long messages* in a channel). A long HTTP message will be cut or split in accordance with the long message mode and datacoding.

21.3 SMS switch

1) How many messages per second can the SMS switch handle?

The SMS switch can handle up to 1,500 messages per second (depending on server hardware). Additional limitation is on the routing module side - in case of a well-built routing scheme, the TPS can be up to 150-200. By request the support team can calculate the current maximum of TPS. It is possible to increase the performance of routing modules. Contact the Alaris technical support team to check whether this can be done for your System.

2) What are the SMS switch ports?

The default port for SMPP connections is 2875, and for HTTP connections - 8001. By default incoming and outgoing secure connections are not available. When enabled for incoming secure traffic, the switch uses port 2876 (for SMPP) and 8002 (for HTTP) by default but this can be changed in internal configuration (additionally an SSL certificate is required). For configuration of outgoing secure connection, the vendor's port(s) should be provided to the support team. More detailed information can be found in question 5).

3) How are long trace files and switch logs stored in the System?

By default trace files are stored for 3 days, and switch\routing logs on the server - for 7 days.

4) What are MT messages and MO messages?

An MT (mobile terminated) message is a regular message sent from a client. An MT message can be sent from a short code to a mobile user (the first part of a 2-way message). The reply of the end user to the MT is

called an MO (mobile originated) message (the second part of the 2-way message). The MO message usually comes in a delivery packet from the vendor side. For detail on configuration of MO messages refer to [Appendix 6. Two-way messaging setup](#)^[464].

5) How do I connect through SMPP over SSL or HTTPS?

By default this feature is disabled in the System (**NOTE:** The *SSL type* option in the [Carriers\SMS channels](#)^[120] interface is out of use and will be removed in the future versions). To enable it for the client side, an SSL certificate should be obtained for the domain name (pointed to the IP address where the SMS switch is installed). Once the certificate is installed by the support team, clients can send their requests to the domain name and SSL port (2876 or 8002 by default). No SSL certificate is required for the vendor side. However, as the outgoing SSL module is an add-on for the System, configuration changes must be performed on the backend by the support team. Create a ticket and communicate the vendor port for secure connections.

6) Where is it possible to find error codes and message statuses?

The list of codes can be found in [SMS\Routing\Translation rules](#)^[328], *Code list* tab. If there is no applicable translation rule (on the tab *Error and status codes*), delivery codes and statuses are passed from the vendor to the client with no change. In case of unsuccessful response to a submit request received from the vendor side, the client will receive a delivery report with the UNDELIV status. In case of an unsuccessful response when the submit is not sent to the vendor (for example, routing is not configured properly) or a timeout in the vendor's response, the code is set to 45 in hex (reason ESME_RSUBMITFAIL).

For binds the list is as follows:

0x00000004 - ESME_RINVBNDSTS - incorrect bind status for given command
0x0000000D - ESME_RBINDFAIL - bind failed due to authorization error (incorrect login, password or system type)

For submits the codes are:

0x00000000 - ESME_ROK - no error
0x00000014 - ESME_RMSSQFUL - message is rejected due to exceeded MPS buffer with non-set *Overflow buffer size*
0x00000045 - ESME_RSUBMITFAIL - no routes were found
0x00000058 - ESME_RTHROTTLED - message is rejected due to exceeded *Overflow buffer size*

For delivery reports, error code 0x00000000 means DELIVRD, 0x00000001 - UNDELIV (in case all routes were unavailable or the message was rejected). Other error codes as well as delivery statuses are proxied from the vendor side (if no translation rule is applied).

7) Is it possible to change the format of message ID? What format is used by default?

Message IDs are generated in hex format by the switch (but can be received in any format from the vendor side). The format can be changed in the internal switch configuration. To do this, contact the Alaris technical support team.

8) Why can a vendor and client message IDs be almost identical?

In case the vendor has not responded to the submit request or the vendor responded with an error code in the response other than 0x00, the vendor message ID is similar to the client message ID, only with the *loc-* prefix and *-n* postfix where *n* is the order number of the vendor in the routing list. In case of unsuccessful response to a submit request, the response contains no message ID as required by the standard. Therefore the message ID is generated by the System.

9) How fast does the System apply delivery reports received from a vendor?

Reports are sent to the client once they are received, if the client channel is online. If the client channel is offline, the reports will be sent either to another client channel of the same product (in case there is any), or once the channel becomes bound and the channel's option *Repush delivery reports* is enabled (only if the channel goes back online within 24 hours after the report is received).

10) Where can I find the description of EDR statuses?

The list of EDR statuses is below:

BUFFERED_CL B	Message went to the client's MPS buffer
BUFFERED_HB	Message went to the client's POI hold buffer
BUFFERED_RB	Message will be resent to the vendor due to a specific error code
BUFFERED_VL B	Message went to the vendor's MPS buffer
BUFFERED_VS LB	Message went to the vendor's window size buffer
BUFFERED_SE GMENT	Message went to the segment buffer (stateful concatenated messages processing)
CLN CHN NOT BND	Client channel is not bound
CLN LOW BALANCE MPS LIMIT	Client balance is too low according to the System setting <i>Low balance account MPS modifier</i> (the allowed MPS balance is calculated as the current balance/Low balance account MPS modifier)
DATA_CODING _FAILED	Data coding is not allowed in the vendor channel and <i>Only lossless transcoding</i> is set in the vendor channel but no symbol translation rule is found in the internal configuration
DATA CODING INCOMPATIBILI TY	Data coding is not whitelisted in the vendor's channel
DELIVER_RESP TIMEOUT	Deliver response was not received from client (applicable for 2way (MO) messages)
DNIS MCCMNC NOT FND	No MCCMNC was found for the destination address (or the address was not specified)
HELD SMS NO CHANNEL	Message was in the client's hold buffer and the POI/channel was deleted

BUFFERED_CL B	Message went to the client's MPS buffer
INCOMPLETE LONG MESSAGE	Message segment(s) were rejected because the switch was unable to obtain all of them during the timeout
INCORRECT MESSAGE LENGTH (DC)	Message length exceeds the limit for a specific data coding defined in the internal configuration
MESSAGE ENCODING FAILED	Transcoding to the vendor's data coding (defined in the channel) failed because the result exceeds the byte limit defined in the switch configuration file
NO ACTIVE SMSRT	All available SMS routers are down
NO ROUTES	No suitable routes were found
NO TEST VND POI FOUND	Invalid service type (vendor POI ID) supplied in an incoming test message request
ROUTE FAILED	Vendor responded to the submit request with an unsuccessful code
SAME CHN SKIPPED ON REROUTE	An attempt based on delivery rerouting through the same SMS channel which was already used for termination of the message is skipped
SENT	Successful message submission
SMS IN BUF OVL	Client's MPS buffer limit overflow
SMS IN HOLD BUF OVL	Client's POI hold buffer limit overflow
SMS IN LIM OVL	Client's MPS limit (buffer is set to 0 or None) overflow
SMS LOOP	SMS was rejected as it was considered a loop
SMS OUT BUF OVL	Vendor's MPS buffer overflow
SMSRT TIMEOUT	All active SMS routers failed to respond to a routing request
SRC POI NOT FOUND	Invalid service type supplied in an incoming submit request
SUBMIT INTERVAL LIMIT	Vendor's submit interval limit is exceeded (more than 1 message tried to be sent without limit)

BUFFERED_CL B	Message went to the client's MPS buffer
SUBMIT_RESP TIMEOUT	No response from the vendor channel within a pre-defined timeout period
TEST SRV TYPE EMPTY	Empty service type supplied in the test submit request
TEST SRV TYPE INCORRECT	Incorrect (non-numeric) service type supplied in the test submit request
TO BE REPROCESSED	Message will be resent due to an unexpired validity period (if validity period resending is enabled)
UNKNOWN MO SMS	No short code was found in the Short code reference book for the destination address sent in the DNIS field
VND CHANNEL UNKNOWN	Switch is unable to find this channel on the specific switch instance (when the channel was deleted before the switch started to use it as a route but the routing module still provided it)
VND CHN NOT BND	Vendor channel is not bound
VND CHN NOT HTTP/SMPP	Incorrect vendor channel settings (i.e. improper link in the System type)
VND CHN SBM QUEUE OVL	Vendor window size limit overflow (buffer is disabled)
VND CHN TCP FAILED	Cannot connect to an HTTP channel (TCP request was rejected)
VND CHN TCP TIMEOUT	Cannot connect to an HTTP channel (no response to TCP requests)

11) A message has NO ROUTES status - what does it mean? Is 'NO ROUTES' status sent to the client side?

The status means that routing has not been configured properly (the client has not been allowed to send traffic, the client has no rate, or no suitable vendor for message termination has been found - more detail information can be found in p.1 of *SMS routing* section below). To check the situation, choose a message with the 'NO ROUTES' status and proceed with simulation (*SMS/Routing/Simulation* interface) specifying the same parameters as the message has - message text, sender ID, destination address, client product and POI and check why there is no suitable route in the given simulation log. Useful guide for simulation troubleshooting may be found in [Appendix 5. SMS simulation troubleshooting guide](#)^[448].

The status is not sent to the client side, but the unsuccessful submit response (with error code 69 in decimal and 45 in hex) is sent. In case the option *Send submit_sm_resp before routing* is enabled for the channel and no routes are found afterwards – the delivery report with the UNDELIV status is sent to the client.

12) What does the status ROUTE FAILED mean?

The status means that the vendor has responded with an error code other than 0x00 – that is, with an unsuccessful submit response. The situation must be checked with the vendor (why their side responded with an error). The error code can be found in EDRs (for example, in *EDR Export (SMS)* it is column *Vendor status code*) or in the corresponding trace file containing the submit response.

13) How do I troubleshoot SRC POI NOT FOUND issue?

The status means that no suitable SMS POI was found for a client submit_sm packet - that is, the submit's service type differs from the POI's one. The service type that the client used can be found in a corresponding trace file or in the EDR (the *Client service type* field). Note that the *Service type* is case-sensitive - to receive submits with any value in the *serviceType* field, * (asterisk) can be inserted as the value in the *Service type* field. Note that only one SMS POI with this value can be created per SMS channel.

14) Why does a message have the status SENT in the System but not DELIVRD?

The System applies delivery statuses once they are received from a vendor. Therefore, if a vendor claims that the report has been already sent to the System, corresponding trace files from their side must be provided as a proof.

15) How does the System split up long messages?

Long messages sent over HTTP are split in accordance with the long message mode of the request. The System does not split long messages sent over SMPP and passes them to a vendor as they were received. Therefore a client that sends long messages must split them on its side beforehand. However, it is possible to reject such messages by enabling the SMS channel option *Reject too long messages*. If the incoming request contains no *longMessageMode* parameter, the default mode *cut* is used.

16) How does the Repush delivery reports option work?

When the option is enabled, delivery reports that should be sent to the client will be stored while the channel is offline and sent when it goes online. If the checkbox is deselected, delivery reports will not be sent if the channel is offline. However, if there is an online channel of the same product with the same IP address of the RX or TR type, reports will be sent to this channel. Below are some examples of channels to which DLRs will be sent (if applicable) when the option is either enabled or disabled:

- Only one channel is suitable and it is online; the option is enabled

The report will be sent once it is received from the provider (since the channel is already online).

- Only one channel is suitable and it is offline; the option is enabled

The report will be sent as soon as the channel is online.

- Only one channel is suitable and it is online; the option is disabled

The report will be sent once it is received from the provider (since the channel is already online).

- Only one channel is suitable and it is offline; the option is disabled

No report will be sent to the channel until it is online. No report (that came when the channel was offline) will be resent to it once it becomes online.

- Several channels are suitable and the channel in question is online; the option is enabled

The report will be sent to the channel once it is received from the provider (since the channel is already online).

- Several channels are suitable and some of them are online while the channel in question is offline; the option is enabled

Reports will not be sent to the suitable channels. The System will wait until the channel where the submit came from becomes online.

- Several channels are suitable and the channel in question is online, the option is disabled

The report will be sent once we receive it from the provider (since the channel is already online).

- Several channels are suitable and some of them are online while the channel in question is offline; the option is disabled

The report will be sent to one of the suitable channels.

21.4 SMS routing

1) What should be configured for successful routing?

The client/vendor (which is supposed to be chosen for routing) must have the *Inbound/Outbound traffic allowed* option enabled (*Carriers* tab) respectively, also all related entities should be created and active:

- The client/vendor agreements must be active. Additionally, the option *Incoming* should be enabled for the client side and *Outgoing* for the vendor side
- The client/vendor balance should not exceed credit limit thresholds (*In/Out credit limit* field of the [Carriers\Agreements](#)^[111] tab)
- The billing mode of the vendor product must be compliant with the client option - for example, if the client mode is *Bill by messages, exclude vendors with segment billing* and the vendor mode is *Bill by segments*, the vendor will not be suitable for routing messages from this client
- Client/vendor channels must be *Enabled*
- Client/vendor POIs for the corresponding channel and product must be active
- There must be a match between the dial code (of the destination address) and MCCMNC in the [SMS\Reference books\e.212/e.164 reference book editor](#)^[280]. The currency exchange rate between the account currency and the System currency must exist in the *Currency exchange rate interface*. The client and vendor products must have an active rate for the MCCMNC/MCC. The client and vendor products must not have a rate for the MCCMNC with *BLOCKED* note and there should be no block rule that blocks the product(s). The routing rule should be active, enabled and its filters suitable for the message routing. In case the rule is in a context other than *DEFAULT*, a corresponding that switches search from the *DEFAULT* context to a required one must be created. If the rule is not checked, most probably there is also a rule with the *Huntstop* option which is checked first (rules are checked in the descending order of rule priority - and in case of the same priority, a rule with a greater ID is checked first). If the rule is checked but the result is *No routes found*, verify that the vendor product is selected in the choice (there should be records like *'17: oper 5, prod 14, choiceProdId 14 - OK'*), the condition returns *True* and the vendor product has a positive weight.

2) What is static and dynamic routing?

Static routing means that vendor products have been added to a choice by the *Add product* button - and the product is set manually. *Add formula* serves to create dynamic choices. Vendor products may not be specified in the choice list since the list may be restricted by *Condition* and afterwards *Formula* is used for vendor sorting. In this case all suitable vendors will be used in routing. A vendor is considered suitable if it has all active entities with the enabled vendor direction (carrier, agreement, product, channel and POI), the credit limit not exceeded and an active rate for the MCC/MCCMNC. In addition, the list can be shortened by specifying the list of vendors manually.

3) What is the difference between the 'Condition' and 'Formula' field? What happens if they are left empty?

The *Condition* field returns a boolean value (*True* or *False*) while *Formula* returns a number (*vendor's weight*). *Condition* defines whether the choice will be selected or not. For example, if *Condition* is $MRG > 0.5$, the choice will not be selected unless the client rate is greater than the vendor's one by 0.5 in System currency. *Formula* specifies how vendor products should be sorted (for example, if *MRG* is set, the vendors will be sorted by margin in a descending order). By default the *Condition* field is $MRG > 0$, and *Formula* is *RND* (random value between 0 and 1). In case of negative or zero weight the vendor product does not take part in routing.

4) Why does simulation fail due to 'no rate found for a client' even if the rate has been added?

Please recheck the rate and period of its activity in the [SMS/Rates/Rate editor](#) ²⁴⁴ interface - the rates must be checked for the MCCMNC selected for routing (in the simulation log the row looks like:

```
MCCMNC <250> for DNIS <7312345678912> found
```

Additionally, the rate must be active as of the simulation date – for example, if the simulation is performed for a past date, the rate must be active as of that date.

5) What is 'weight' in routing?

The weight of a vendor product is calculated only when *Add formula* used (it means a dynamic (sub)choice is added) and the weight is calculated based on the *Formula* value. If the field is empty, random values will be applied as the vendor weight.

The weight is used to sort vendor products in the final routing list. Suppose there are 2 choices, the 1st one has vendor product *A* and *Formula: MRG*, the 2nd one has vendor product *B* and *Formula: MRG+1*. Suppose both vendors are chosen for routing, and the vendor *A* margin is 0.5 and vendor *B* margin is -0.3. The first vendor obviously has a greater margin, but the message will be first sent to vendor *B* (since it has a greater weight: $\text{margin} + 1 = -0.3 + 1 = 0.7$).

Please note that the weight cannot be negative or 0, otherwise the vendor product will not be added to the routing list.

6) What is a final routing list?

During any simulation task or message sending, the SMS routing module checks such info as client entities (POI, SMS channel, rates, etc), available vendor rates, and suitable routing rules. At the end of the checks, a routing list is formed. It contains a list of vendor POIs to which the message will be sent. Static choices are checked first; dynamic choices go after (in vendor weight descending order), unless the System parameter *Use choice and rule ID dependent sorting of routes* is enabled (set to 1). If there is more than one SMS POI assigned to a vendor product that can be chosen for routing, all POIs will be added to the final list.

7) How do I check why a routing rule is not chosen for routing? How do I check if a rule was changed?

Changes can be checked in the *SMS routing rule change log (Administration)* report. In addition, the situation can be checked in [SMS\Routing\Simulation](#)^[314] tool - sometimes changes in other rules may have an effect as well (for example, if rule ID 74 previously had the option *Next: Continue search within the same context* and the option was changed to *Huntstop*, rule ID 69 with the same priority in the same context may not be checked anymore).

8) How can I block traffic based on content?

Create a block rule with a defined *Content pattern*. The field supports regular expressions (Python syntax) - for example, if it set as `^.*text.*$`, any traffic that contains the word *text* will be blocked. Another example is to create block rule with *Vendor products inclusive list* and *Content pattern* set to `^(?i)Uber.*$` - if a block rule is checked, then all vendor products specified in the list will be blocked. (Block rules are checked before regular and test rules but in accordance with the context and filters - so the rule will be checked if a message starts with the word *Uber* (case insensitive). If the vendor product list is set to 'All' and the rule works in accordance with the text filter, all possible vendor products (that have rates for the MCCMNC) will be blocked. 'Block' words can be specified pipe-separated, for example:

```
^. *Facebook.*|. *WhatsApp.*|. *Viber.*|. *Google.*|. *Telegram.*|. *Microsoft.*$
```

In case of the occurrence of any word, the traffic will be blocked.

9) Is it possible to apply a rule if the traffic is sent from several specific sender IDs?

Use the *Sender ID* field while creating/editing a rule. The field supports regular expressions (Python syntax). Besides, the field can be set as *Sender ID: X|Y|z*, then the traffic only from senders X, Y or z will be passed through the rule. If the rule must be suitable for many sender IDs, it is recommended to use the ANI tags functionality. Multiple sender IDs can be added under one tag (name) with the *Source number* direction. Then it will be possible to specify the tag (name) in *Source tags* filter of a routing rule. Tags are configured in interfaces [Reference books\Tags](#)^[160] or [Reference books\Tags import](#)^[162]. For example, if numbers 1,2,3,4,5,6,7,8 are added under tag *D* and this tag is specified in a rule as *Source tags inclusive list*, the rule will be applied to all sender IDs 1,2,3,4,5,6,7,8.

10) Is it possible to send a message from a client to a vendor within the same carrier?

Such loops are prevented in the System. During simulation it will be registered in the log:

```
Vendor ID 14 is a client, skipped
```

11) How can I route a message to a vendor with the greatest stats (ASR\DLR) first?

It is suggested to use the *Formula* field - for example, if the *VPoiASR* metric is set for a choice, it means that the vendor list (which is formed in accordance with the choice) will be sorted based on the ASR value for the vendor POI + MCCMNC (descending order - so the first vendor in the list will be with a better ASR). The similar metric for DLR is *VPoiDLR*.

12) Is it possible to route 50% of traffic through channel X and the rest 50% - through channel Y if the channels are under the same product?

In case the *Formula* field contains the *RND* metric (which means that a dynamic choice with a single vendor product is created), traffic between the vendor channels will be separated randomly but almost equally (provided that only two channels are assigned to the product). The *Max. routes* parameter must be set to 1, otherwise both channels will be included in the routing list, only their order will be changed.

13) What does the 'Vendor rate' field in Routing rules show?

The information is visible when an inclusive/exclusive *MCCMNC* list is specified in a test/routing rule - the highest vendor rate (in case there are several prices) for the list is shown.

14) What does the 'Share' field mean?

The field is available when 2 or more sub-choices are created within one choice. It specifies how traffic should be divided between the subchoices. For example, if the first subchoice has *X - Wholesale* product with the share 10%, the second is *Y - Direct* with the share 70% and *Z - Gold* with the share 20% (total sum of the shares should be 100%), then every time when the rule is selected for routing, a random number (from 0 to 1 with floating point) will be generated. If it is equal to or less than the first choice share (0.1), the product *X - Wholesale* will be used for routing. If the random value is greater than the first share (let's say it is 0.85), it will be compared with the second share with the following logic: if (random value minus the first share value) \leq the second share. So we get $(0.85 - 0.1 = 0.75) > 0.7$, that is why the second sub-choice is not selected as well as the first one. The logic for application of the next sub-choice is the same: $0.75 - 0.7 = 0.05 < 0.2$ which met the condition - so the product *Z - Gold* will be added to the routing. Note that only one sub-choice out of all specified in the choice is always added to the routing.

15) Is it possible to reroute a message?

Two types of rerouting exist in the System. The first one is based on delivery reports received from the vendor side (can be configured in [Carriers\SMS channels](#)^[120], *Reroute statuses* field). The second type of rerouting is not configurable. It is always enabled and based on the submit response received from the vendor - in case it is unsuccessful (the submit response has error code other than 0x00) or the message is rejected by submit timeout, the message will be sent to the next-in-line vendor. Additionally the logic can be changed through the [Carriers\SMS channels](#)^[120] parameter *Routing stop codes*. Once the code is received from the vendor, the routing stops (the message will not be sent to the next-in-line vendor and the client will receive the UNDELIV status for the message).

16) Is it possible to resend a message?

It is not possible to resend an already sent/delivered message manually (even if it has an unsuccessful status like *NO ROUTES* or *ROUTE FAILED*).

17) How can I configure HLR dipping? Which information should be provided to the technical support team? How do I check if the configured dipping works?

The platform has integration with the following HLR providers: *Advance, Beepsend, CLX, CM Telecom, HLR Directory, Horisen, Infobip, iSMS, Kaleyra, Lleida, MessageBird, Mediafon, Mitto, PlusMobile, RouteMobile, Telesign, Text2Reach, Tyntec, XConnect*.

In case you wish to integrate a new provider, please supply the support team with the provider's API description. For configuration of providers from the list above please share the credentials (if necessary) and the list of e.164 prefixes for which dipping to a specific provider should take place (additionally it is possible to configure dipping to a specific provider for a client product).

Once the support team has completed configuration on their side, you need to enable the *Dip HLR* option for clients for which request dipping should happen. The *HLR prefixes* field specifies the codes for which dipping must take place as well. For example, in the internal configuration prefixes 78 and 79 are set to the Mitto provider, but for a specific client the field can be used to restrict requests to 78 prefix - so only prefix 79 has to be specified in the field. Checking the configuration is possible through the [SMS\Routing\Simulation](#)^[314] tool. The entry will look as follows in the simulation log:

```
HLR(g): HLR request will be sent to ('hlr.com', 80)
HLR: result failed, reason <No MCC/MNC found for 798 with X HLR service>, cached <0>,
source_type <refbook>
```

A successful record will look as follows:

```
HLR(g): HLR request will be sent to ('hlr.com', 80)
HLR: result ported, MCCMNC <248002>, ported <True>, cached <1>, source_name <hlr_1>,
source_type <hlr_1>, HLR product id <>
```

NOTE: It is possible to interconnect with Horisen directly through the routing module (bypassing connection to the HLR module). This comes instrumental when there is a need, for example, to ensure the performance of over 200-300 HLR requests per second. To enable the feature, contact the Alaris technical support team and communicate the code BZ30131.

21.5 HLR module

1) What is HLR dipping and in which cases can it come handy? Is it available in the System?

The HLR functionality allows receiving current MCCMNCs for numbers through sending requests towards HLR providers over HTTP(S) or ENUM. Enabling such functionality provides an opportunity to define MCCMNCs of ported numbers correctly, which in turn allows choosing a route more precisely and evaluating the message cost. Additionally, it can be useful when the System reference book is not up-to-date in regard to some countries or networks. Note that most HLR providers charge for each incoming request, meaning that the overall margin can be affected.

The Alaris technical support team can install the 'HLR proxy' module that can be used to integrate with different HLR providers and request information about numbers' MCCMNCs before the routing. To install the module, open a ticket at Helpdesk with a description of required configuration: the list of prefixes and providers with their credentials.

2) How do I add a new provider to the System?

The platform has integration with the following HLR providers: *Advance, Beepsend, Calixtaondemand, Cequens, CLX, CM Telecom, Elfo, JT Navigate, HLR Directory, Horisen, Infobip, iSMS, Kaleyra, Lleida, Lifecell, Mediafon (2 services), Lleida, MessageBird, Mitto (both over HTTP and ENUM), NetNumber, Neustar, Restcomm, RouteMobile, Svyazcom, Telesign, Telintel, Text2Reach, TMT (live, live-sip, enum and HTTP services), Tyntec, XConnect*

Almost all the providers are implemented over HTTP (REST API) except for the TMT and Mitto services. Note that the Alaris Labs team is not related to any of the providers' contacts. Also we cannot advise our customers in regard to which provider should be selected.

In case you need to integrate with a new provider, please supply the service API description and credentials to the Alaris technical support team. To configure one of the already supported services from

the list above please share the credentials (if necessary) and the list of e.164 prefixes for which dipping to a specific provider is needed (additionally it is possible to configure dipping to a specific provider for a client product). Note that in case of multiple services (for example, XConnect NPQ, GNR and live), each service is configured as a separate provider, requiring separate credentials and configuration details. In some cases HLR providers need to whitelist your server IPs. Contact the Alaris technical support team to verify the list of IP addresses to be whitelisted.

Additionally, it is possible to set TTL (time to live - defines for how many seconds requests will be stored in cache) for each provider separately as well as a timeout (in seconds; defines the period to wait a response from a provider).

Once the Alaris technical support team has completed the configuration, you must enable the *Dip HLR* option for clients for which request dipping is needed. The *HLR prefixes* field specifies the codes for which dipping must be performed as well. For example, in the internal configuration prefixes 78 and 79 are set to the Mitto provider but for one specific customer it is necessary to check the 79 prefix only and in that case the *HLR prefixes* field comes useful. It is possible to check the configuration through the [SMS\Routing\Simulation](#) ^[314] tool. The entry will look as follows in the simulation log:

```
HLR(g): HLR request will be sent to ('hlr.com', 80)
HLR: result failed, reason <No MCC/MNC found for 798 with X HLR service>, cached <0>,
source_type <refbook>
```

A successful record will look as follows:

```
HLR(g): HLR request will be sent to ('hlr.com', 80)
HLR: result ported, MCCMNC <248002>, ported <True>, cached <1>, source_name <hlr_1>,
source_type <hlr_1>, HLR product id <>
```

3) How detailed is HLR dipping configuration?

It is possible to configure several providers for the same prefix(es) to enable backup route if the first service does not respond, does not provide an MCCMNC or rejects the request - an HLR dip will be done through the next-in-line provider. Along with that the System uses the longest match search to find a suitable provider to send a dip request, which makes it possible to check the same country (but different networks) using different sources.

Beside prefixes, it is also possible to configure client-based HLR routing, that is, a request received from a specific client to a specific destination can be routed to a particular HLR provider while the rest of the customers use the reference book only or another set of providers.

Internal configuration contains the following parts:

1. all enabled services are listed in the sources section with corresponding credentials. Example:

```
"sources": {
  "provider": {
    "type": "provider_type",
    "key": "provider_key",
    "url": "http://api.hlr.provider.com/hlr?auth=$key&msisdn=$dnis"
  }
}
```

2. the rules section describes how to send dipping requests. Example:

```
"rules": [
```

```
{
  "codes": [ "33", "62", "7904", "7910" ],
  "choices": ["provider1"]
},
```

-- the section means that if a message to 33, 62, 7904 or 7910 prefix is received, a request will be sent to the provider1 service

```
{
  "codes": [ "1", "336001" ],
  "choices": ["provider2"]
},
```

--the section shows that the provider2 service has been enabled for a French network as well as for USA. Note that if a request to 336001* is received, even though the first rule is suitable as well, the longest match will be checked in the first place. If no response is received (or no MCCMNC is returned in a response), the check will be done through the first rule, i.e., MessageBird. Additionally it is possible to stop the check once this specific rule is applied.

```
{
  "codes": [ "7" ],
  "choices": ["provider3", "provider4"]
}
```

--the rule enables checks for Russia codes (the longest match for 7904 and 7910 will be done towards the first rule). Note that the first attempt will be sent to provider3 and in case no MCCMNC is received, provider4 will be used as a backup.

```
],
```

Additionally, the list of prefixes that can be used by a client can be limited in the *HLR prefixes* field of the [Carriers\Products](#) ^[103] interface (space separated). Suppose the configuration as illustrated above has been enabled but the client's attempts must be dipped for 1807* and 7906* only. In this case the client product must have the *HLR prefixes* field set as:
1807 7906.

4) How does cache work?

Each HLR service has a TTL setting that defines the period for responses to be saved in an internal storage (cached). Cached records are saved for particular numbers to which the requests were made. It helps avoiding multiple requests to the same provider/service within a certain period of time (which can be reconfigured by request of the System owner). If it is required to flush the cache (that is, when the provider returned an incorrect MCCMNCs for a certain country), contact the Alaris support team to do that.

5) Is it possible to use my own MNP database?

Yes, the System enables such possibility. The database is uploaded to the servers where the Alaris software is installed and maintained by the Alaris team (which means that the database is kept up-to-date with the help of full and incremental updates). Note that the procedure must be agreed with the account manager at Alaris Labs first as it requires allocation of additional resources to store the database. Once confirmed, open a ticket at Helpdesk providing the database format as well as information of database update frequency. Note that it's mandatory to have either MCCMNC or a list of matches between returned routing number/prefix/network name and MCCMNC. In case the database should be uploaded from a dedicated server, no additional confirmation is required.

6) Is it possible to take an HLR rate into consideration while routing a message and calculating the margin?

Yes, to achieve that, create an HLR product with the vendor direction (with no channel or SMS POI attached to it). To identify the HLR provider correctly, the product must be created in the following:

Product type: HLR

Direction: Vendor

Product name: set to the provider's service name (case-sensitive)

Product notes: set to the HLR provider name (case-sensitive)

To verify the product name and notes, contact the Alaris technical support team.

Once created, it is necessary to import or add rates to that product to ensure correct calculation. To subtract the cost from client requests, set the System parameter *Deduct HLR rate from margin (0 - no, 1 - yes)* to 1 ([Administration\System settings\SMS routing](#)^[69]). The margin will be calculated as follows: (client rate - HLR rate - vendor rate) (in the System currency). Note that no cost is deducted for cached requests as no actual request was sent through an HLR provider.

Invoices for HLR vendors are generated in accordance with the agreement.

7) Is it possible to use the HLR provider's response code in routing?

The possibility to route messages in accordance with returned information has been implemented for some providers. Note that different fields are taken into account for different providers; the list can be found at [Appendix 4. Formulas and conditions in routing\Routing metrics\Message metrics](#)^[439] (in the description of the *hlrResponseCode* metric).

Suppose all messages for which a non-zero code was returned in the *gsmCode* field from Mitto, must be sent towards vendor product X. In this case the *Condition* field of a routing rule must be set as:

```
hlrResponseCode <> 0
```

and the choice must be set to *product X*.

8) Is it possible to route ported messages towards particular vendors?

As the *Condition* field of routing rules supports the *PORTED* metric, messages can be sent through vendor products based on a returned portability flag. Note that the System does not provide such information itself; besides, this flag may not be implemented for some HLR providers. The portability flag is taken from different fields for different HLR providers:

Beepsend: *ported* field

CM Telecom: *ported* field

Horisen: *ported* field

Infobip: *ported* field

Mediafon (both services): *IsPorted* field

MessageBird: *ported* field

Mitto: *ported* field

TMT ENUM: *np* field

TMT live, sip and HTTP services: *ported* field

Tyntec: *ported* field

XConnect: *npi* field

9) Is it possible to substitute or translate MCCMNCs returned by HLR providers?

It is possible to configure correlation between HLR statuses (keys) and MCCMNC for more flexible routing for some HLR providers:

- the MessageBird HLR provider: the HLR key is the *status* field

- the Mitto HLR provider: the HLR key is the *gsmCode* and *response* fields; also the provider's MCCMNC can be changed to a predefined one
- the Horisen HLR provider: the HLR key is the returned MCCMNC (that is, it is possible to replace a returned MCCMNC by a predefined one)
- the Tyntec HLR provider: the HLR key is the *errorCode* field

Suppose MessageBird returns the absent status. Once the correlation between this status and MCCMNC 999999 is configured, it can be used in routing rules. Note that the reference book MCCMNC will be reflected in EDRs and Analytics if a dummy MCCMNC starts with 999 while the dummy MCCMNC will be used for routing only. To configure the correlations, contact the Alaris technical support team.

10) What is HLR reselling and how can it be configured in the System?

The System owner can resell HLR service of an already configured provider or local MNP database to the clients. Reselling allows System owner's clients to retrieve information in regard to number portability directly from the HLR module. It comes handy when a partner needs to verify which network a number belongs to. Currently the supported protocol is HTTP only.

Note that additional configuration (described below) is required as well. Once configured, the clients will be able to use a URL (each client must use their own link with a predefined set of credentials). The requests will be sent to the internal module and then routed to an HLR provider based on the internal set of rules.

To configure the service, open a ticket at Helpdesk with the following information:

- client IP address(es) from which information will be requested (they'll be whitelisted at our side)
- any domain name (that clients will use to request the HLR module) registered for the IP address where the HLR module has been installed. Regularly it is the address of the web file server. To verify it, contact the Alaris technical support team. Note that multiple domain names can be configured
- login and password that will be used by the client to send requests (by default generated randomly by the Alaris technical support team)
- client product ID created in the System for the client (required if client HLR invoices and EDRs must be generated in the System)

Additionally it is advisable to verify the configuration that will be used for the HLR client requests (which HLR provider has been configured for prefixes, their TTL). It is also possible to limit destinations that will be specified in a client's link (for example, if all codes have been configured for Mitto but a client can check only +1/+7 numbers).

Note that by default the System does not generate invoices or EDRs for customer HLR traffic. To enable those features, create a carrier, account, agreement and a client HLR product for the partner who will use the reselling service. No SMS channel and POI must be associated with the product, however corresponding rates must be uploaded to the product. When configured, provide the product ID that will be associated with the user to the Alaris technical support team. Invoices will be generated based on agreement settings and HLR EDRs will have its own structure:

Event time: request time in format *YYYY.MM.DD HH24:MI:SS*

Customer login

Destination address

MCCMNC

Result: -1 unsuccessful, 0 successful

Response delay

Portability flag: -1 - no flag returned, 0 - number is non-ported, 1 - number is ported

Cached: 0 - response was received from a provider, 1 - taken from cache

HLR service name

HLR client rate

HLR client product ID: 0 in case no product ID was defined for the user that sent the requests

HLR provider

HLR provider error

11) How can a client use the service?

Once the service is configured by the Alaris technical support team, a link in the following format will be provided:

```
https://<HLRdomain>/hlr.cgi?login=<userlogin>&password=<userpass>&dnis=<dnis>
```

The same link can be sent to a client with replaced values of login, password and domain. The dnis placeholder must be replaced by an actual number (e.164 format) that must be checked.

Note that only HTTP API GET requests are supported. Example:

```
curl 'http://hlr.domain.com/hlr.cgi?login=user1&password=8dg4d1Nda5&dnis=79064539570'
```

12) What info is returned in a response?

The System responds as follows:

```
{
  "source" : "HLR",
  "ported" : 0,
  "providerResponseCode" : "0",
  "mccmnc" : "250099",
  "source_name" : "mitto_hlr",
  "rate" : 0.0012,
  "dnis" : "79064539570",
  "source_type" : "mitto",
  "id" : 10230645,
  "result" : 0,
  "cached" : 1
}
```

where

"ported": shows if the number is ported (0 - no, 1 - yes)

"providerResponseCode": response code in accordance with the *hlrResponseCode* metric (see [Appendix 4. Formulas and conditions in routing\Routing metrics\Message metrics](#)⁴³⁹⁷)

"mccmnc": returned MCCMNC

"source_name": name of the HLR service in which dipping was performed

"rate": HLR provider's rate

"source_type": HLR provider (the difference between this field and *source_name* is that multiple names (services) can be configured under the same provider)

"id": unique identifier of the request in the database

"result": shows if the result is successful (-1 - no, 0 - yes); note that -2 can be returned as the *result* if no rule has been configured for the number of the number is too long. The restriction for the length can be configured internally.

"cached": shows if the result was taken from cache (0 - no, 1 - yes)

An unsuccessful result can look as follows:

```
{
  "providerResponseCode" : "UnknownSubscriber",
  "message" : "No MCC/MNC found for 12345678910 with mitto service",
  "mccmnc" : "",
  "source_name" : "mitto_hlr",
  "dnis" : "12345678910",
  "source_type" : "mitto",
  "id" : 90297376,
  "result" : -1
}
```

Note that some fields can be hidden from the response by request of the System owner.

21.6 Translation rules

1) Is it necessary to specify a client\vendor products list and MCCMNC list?

The fields *Client products*, *Vendor products* and *MCCMNC list* are intended to configure rules of particular partners if required (so the rule will be applied only to client\vendor products and/or destinations specified in the list if the list type is inclusive and will be applied to all products\destinations except ones specified in the list if the list type is exclusive).

2) Why it is not possible to specify an MCCMNC list selecting the Pre-routing stage? What is the difference between the Pre-routing and Post-routing stage?

The stage specifies when the translation rule is applied – before or after the search of applicable routes. It is not possible to use the *MCCMNC list* on the *Pre-routing* stage because on that stage the MCC (MCCMNC) that will be used for routing is not defined yet. Additionally routing rule IDs are not defined yet, thus it may affect the result (for example, if message text is translated to another, it can affect some routing rules that contain a message text filter, and these rules may be selected or dropped). The *Post-routing* stage means that the translation will be applied to vendor products of the final routing list - so routing will happen based on the parameters of the initial message.

3) What is the purpose of Sender ID\Dest. number\message pattern?

Pattern fields are designed for the same purpose as the *list* fields - to specify the sender ID, destination address and/or message text so the rule works based on these parameters too. The pattern fields support regular expressions (Python syntax) along with static values. Also the *Translation* field depends on *Entity* value and the corresponding pattern field if it is a regular expression. For example, if *Entity* is set to *Sender ID*, then *Translation* will be based on the *Sender ID pattern* field - if it is a regular expression which contains some groups, these groups can be used in *Translation*. At the same time *Dest. number pattern* can contain groups of regular expressions but they will not affect the *Translation* field.

As an example create a rule where the sender IDs *Google*, *WhatsApp*, *Viber*, *Twitter* must be replaced by *Info* only when the message text contains the word *code*:

```
Entity: Sender ID
Sender ID pattern: Google|WhatsApp|Viber|Twitter
Message pattern: (.*)code(.*)
Translation: Info
```

If it is needed to ignore the register of the Sender ID, the rule will look like:

```
Entity: Sender ID
```

Sender ID pattern: *(?i)Uber*

Translation: *Info*

So the sender ID *uber* written in any register (*UBER, uBer, Uber, UbeR, etc*) will be replaced by *Info*

The following rule will remove *Sender*, translate the following 9 digits and add two random digits to the sender ID:

Entity: *Sender ID*

Sender ID pattern: *Sender (\d{9})(.*)*

Translation: *\g<1>RAND(2)*

4) Is it possible to change all sender IDs received from a particular customer to another sender ID?

The following rule must be created:

Entity: *Sender ID*

Client product inclusive list: *Client X - Wholesale (USD)*

Sender ID pattern: *(.*)*

Translation: *Info*

NOTE: The *Sender ID pattern* field can be left empty.

5) How is it possible to translate any sender ID to a random sender from the list? In case there are multiple sender IDs, how is it possible to configure a translation rule for all senders which are not from the list?

The list of sender IDs which should be translated are defined in the *Sender ID pattern* field - the field supports up to 2,000 characters or 100 groups of regular expressions (if set). In case of translation of any sender ID, the list should be empty or should contain following regular expression: *.**

If the list contains too many senders, it is recommended to use the *Reference books\Tags* interface, where it is possible to specify multiple sender IDs within one name (*tag*) and use this name to define all these numbers. For bulk uploading use the *Reference books\Tags import* interface. Once the tag is added (let's name it *Test_tag*), the translation rule can be created as follows:

Entity: *Sender ID*

Sender ID pattern: *(.*)*

Tag: *Test_tag*

So any sender will be translated to a random record from *Test_tag* tag.

To exclude some senders from the search, a tag (with *Direction: Source number*) must be created for the list as in the previous example. The translation rule will look as follows:

Entity: *Sender ID*

Sender ID tag type: *Exclusive list*

Sender ID tag: *Test_tag*

Translation: *Info*

6) Is it possible to change message content?

Yes, it is possible - a translation rule with *Entity: Message text* must be created. The *Message pattern* can be specified as a regular expression of message text based on which the rule will be applied. The *Translation* field should contain the value to which the message text will be translated (it may be a static value or a regular expression).

Suppose you need to use only the code (xxxx) from all messages containing 'Your code is xxxx', where x is any digit. Therefore the fields *Message pattern* and *Translation* must be set as follows:

Message pattern: Your code is (\d{4})
Translation: \g<1>

The quantifier {4} shows that there can only be 4 digits. If the restriction is unnecessary, the message pattern can be specified as *Your code is (\d*)* - so any (even 0) number of digits is allowed.

Suppose you need to remove some parts of a message. For example, the message contains *Your Yahoo code is xxx, thanks*, where xxx is any code with any number of symbols, and the words *Yahoo* and *thanks* should be removed. The rule will look as follows:

*Message pattern: (. *Your) (Yahoo) (code is. *)thanks*
Translation: \g<1> \g<3>

In this case the comma after the code will be included in the translated message as well. To remove it, the rule should look as follows:

*Message pattern: (. *Your) (Yahoo) (code is. *)\, thanks*
Translation: \g<1>\g<3>

If you need to create a rule that replaces a particular word (or several occurrences of the word) to another word, enable the option *Treat as substitution*. The rule will look as follows:

*Message pattern: Your Yahoo code is. *thank you for choosing Yahoo*
Translation: Yahoo|Google

The translated text will be like *Your Google code is 123456, thank you for choosing Google*

To replace specific words, two rules must be created. Suppose the message has the following format: *'Twitter code is 8999. Twitter link: http://goo.gl/twitter1234'* and all occurrences of *Twitter* must be removed, also *code* should be changed to *Code* and the link should be replaced by <https://twitter.com>^[494]. The first rule(with the greatest priority) will be as follows:

Next action: continue
Text pattern: Twitter code is (.) Twitter link: (.*)*
Translation: Twitter |
Treat as substitution: enabled

The second rule (with a lower priority) will be as follows:

Next action: huntstop
Text pattern: code is (.) link: (.*)*
Translation: Code is \g<1> link: <https://twitter.com>^[494]
Treat as substitution: disabled

7) Is it possible to request delivery reports from a vendor?

In accordance with SMPP 3.4 specification, the flag *registered_delivery* set to 1 in *submit_sm* requests delivery reports from the vendor. It is possible to set the flag to 1 in [SMS\Routing\Translation rules](#)^[328]. For example:

Entity: Registered delivery

Translation: 1

The rule will be applied to any message. If the rule must be applied to specific vendors/destinations, the corresponding filters can be specified.

8) Is it possible to set source ToN to 1 in case the sender ID contains only digits or to 5 in case of alphanumeric sender ID?

To achieve the goal the following translation rules should be created:

Entity: Sender TON

*Sender ID pattern: [0-9]**

Translation: 1

Entity: Sender TON

Sender ID pattern: \w[a-zA-Z]+\w**

Translation: 5

NOTE: the same pattern of rule creation is applicable for entities *Source NPI*, *Destination TON*, *Destination NPI*.

21.7 SMS\Rates

1) How can I check all periods of a specific rate?

In the [SMS\Rates\Rate editor](#)^[244] interface specify the necessary filters (*Client/Vendor*, *Product*, *MCCMNC*, etc) and set the *effective interval* with empty *start date between* and *end date between*, then click *Apply filter*.

2) Is it possible to add the same rates to multiple customers at once?

To do this, create a parent product and add all rates to the product. As soon as client products have the product as a parent one (*Products >> Parent product*), the rates of the parent will be inherited by the client products.

3) Is it possible to change the price to the same value for multiple customer products?

The situation may be resolved by the *Group by* option ([SMS\Rates\Rate editor](#)^[244] interface). For example, you can specify *Group by MCCMNC* only and set the *MCCMNC* filter. Once you click *Apply filter*, the group will be shown in the main panel of the interface. The group can be modified by the *Edit* button. To change specific products go to the *Rates* tab, select the appropriate products specify the price by using the *Modify period* button.

4) Does the System have a default template for rate exporting? Where is it configured?

All templates are located in the [Administration\Template manager](#)^[75] interface. The template *SMS rate update letter* is used for rate letters and the *SMS rate export* template is used for the export result. To update the second template, download the file, change it and upload back (by clicking the *Refresh* button next to the template name and selecting the file by the *Browse* button). Note that the column set for rate export is configured in [SMS\Rates\Rate export](#)^[257] >> *Column settings*. Additionally it is possible to have different templates for different companies/accounts/products - a new template with the type *SMS rate update letter/SMS rate export* must be created. It is possible to specify the *Contract Company/Accounts/Products* field for the template. Additionally, it is possible to configure the set of columns on the carrier/account/etc. level by creating a new set in the *Column settings* tab.

5) Where it is possible to define which email server/sender name will be used for rate sending to customers?

The configuration of all outgoing accounts takes place in [Administration\Outgoing email accounts](#)^[26]. For rate sending an account of the *Rates* type is used (otherwise an account of the *Default* type is employed).

6) How can I configure automatic uploading of rate sheets from a predefined email to the System?

For configuration of automatic rate import please provide the support team with the following information: server type (POP3 or IMAP), server port, server address, email login, and email password. Once configured, the fetching module will check the mailbox for emails (unread - in case of IMAP protocol) every 10 minutes and upload them to the System. However, not all emails will be fetched into the System - only those for which rules are configured in the [Administration\Email processing rules](#)^[22] and [SMS\Rates\Auto rate import](#)^[239] interfaces. The former is responsible for rules in accordance with which emails from the mailbox are processed and uploaded to the System ([Administration\Email processing rules](#)^[22] >> *Files*). [Administration\Email processing rules](#)^[22] regulates how the received rate sheets should be parsed and imported to products. Presets for rate sheets can be configured and saved on the [parsing](#)^[263] step of the [SMS\Rates\Rate import](#)^[258] interface.

Note that auto import rules follow email processing rules and the important information is to know to which product the rates will be uploaded. Therefore it is not necessary to specify filters in auto import rules such as *File name mask*, *Mail from mask*, and *Mail text mask*.

7) Why can an auto import operation fail?

If a file is visible in the [SMS\Rates\Rate import](#)^[258] interface but a task was not created (to check this, select the file and look at the bottom grid), please run *Auto import selected file* and check the output. In case of parsing error, review the parsing step of rate import. You will need to import the file manually to understand what exactly the issue is. Make sure that date format is suitable for dates specified in the file, the columns are indicated correctly and the *Start row* is specified properly as well.

If a task has been created in the *Rate import* interface, but was not imported, please recheck the task details. Click on the *view* hyperlink and see if the rate sheet contains any critical errors. Then you can disable the specific errors of entire error groups in [SMS\Rates\Auto rate import](#)^[239] >> *Error type levels*.

8) What does the 'Status' column in Rate import show?

The *Status* column shows the status of a rate sheet. It can be changed manually but it does not affect the real result of import. Possible values are:

Not imported: the file has not been imported since no suitable auto import rule had been found or due to parsing errors which are critical for auto rate import (can be configured in [SMS\Rates\Auto rate import](#)^[239] >> *Error type levels*)

Imported: the import task has been finished successfully

Confirmed: the status is set by the user to confirm that the file has been imported correctly

Ignored: the status is set by the user to mark files not intended for import

Canceled: the import task has been canceled by the user

Ready to import: the file has been uploaded to the System in accordance with an email processing rule and will be processed soon

In progress: the file is being automatically imported

Failed: the file has not been imported due to critical errors found in the file (can be configured in [SMS\Rates\Auto rate import](#)^[239] >> *Error type levels*)

9) Is it possible to cancel changes made through rate import?

Cancellation can be done using the *Roll back rates* button of the [SMS\Rates\Rate editor](#)^[244] interface. Specify a product and period to which the rates have to be rolled back. For example, if a rate had the value 0.001 on 01.01.2019 00:00:00 (by server time) and its price was changed on 01.01.2019 3:00:00 to 0.1, once the option is used with the specified *Period: 01.01.2019 02:00:00*, the price will be changed back to 0.001 (since at 02:00:00 it was still 0.001).

10) How do I upload rates that contain MNC values like 999?

Sometimes providers offer prices only to MCCs. Placeholders like '-' or '999' can be specified in the MNC column of the rate sheet. To upload the MCC correctly, we suggest using the following system setting ([Administration\System settings\SMS rates](#)^[66]):

Default network markers (client/vendor) - a comma-separated list of characters that must be ignored when parsing the MNC and/or e.212 column. The parameter is set separately for the client and vendor. It is helpful with price lists that contain placeholders (for example, space, dash or 999) instead of empty value in the MNC/e.212 field when offering a flat country rate.

11) Why can a rate for a past period in Analytics have one value and another in the Rate editor?

The situation can be caused by a rate change in past. It can be checked in *SMS rate change log (Administration)* report (*Reports* interface) which by default stores changes for the past 30 days.

12) What does the field 'dial code' in rates mean?

The field is used for the A-number (sender ID)-based routing as well as for routing based on the destination prefix. The routing logic is as follows:

- 1) The System matches the dial code from the rate with the sender ID (**NOTE:** the exact match is required)

- 2) If the match is exact, the rate will be used - so billing takes place in accordance with the sender ID
- 3) If the dial code does not match the sender ID in full, the System will try to match the dial code in this rate with the destination address

Suppose there are 3 rates in a client product - MCC 250 without a dial code (the first rate), MCC 250 and dial code 79 (the second rate), MCC 250 and dial code 8800 (the third rate):

- 1) If message is sent from (sender ID) 8800 to (destination address) 791095467, the third rate will be used (as the sender ID fully matches the dial code from the rate and the MCC is suitable for the destination address).
- 2) If the message is sent from 88001 to 791095467, the second rate will be used (as the sender ID does not match the dial code in full, and the dial code from the rate is suitable for the destination address. No exact match is not required for the destination address.)
- 3) If the message is sent from 88 to 784985769845, the first rate will be used (as neither the sender ID or destination address are suitable for the rate dial code, the System uses its general logic and searches for a match between the destination address and MCC/MCCMNC in accordance with the reference book).

21.8 SMS billing

1) What is the difference between the 'Bill by segments' and 'Bill by messages' options in the Products tab?

If a message is received over HTTP with the long message mode *payload* or a long message is received over SMPP (in the *short_message* field with the length greater than 160/70 symbols respectively on the *data_coding*), the number of segments will be calculated based on the data coding. In case of the *Bill by message* mode, the product will be charged for these n segments as for one message, in case of the *Bill by segments* mode, the product will be billed n times ($n \times \text{rate}$).

In this way, the *Bill by segments* mode has an effect in following cases:

- a long message is received over SMPP and sent further over SMPP
- a long message is received over over HTTP with the longMessageMode=payload and sent further over HTTP
- a long message is received over over HTTP with the longMessageMode=payload and sent further over SMPP

The following five options are available for the client side:

- *Bill by messages, exclude vendors with segment billing* - any long message will be billed as one message but vendor products with segment billing do not take part in routing
- *Bill by messages, include vendors with segment billing* - any long message will be billed as one message, vendor products with segment billing take part in routing
- *Bill by segments, calculate routing rate by message* - segment billing, routing rate will be calculated by message
- *Bill and calculate routing rate by segments* - both billing and routing will calculate rate based on segments

- *Bill by messages/segments depending on vendor mode* - billing/routing is based on the selected vendor product option

NOTE: The difference between the options (*calculate routing rate by message* and *routing rate by segments*) is in the way of how the rate for message routing will be calculated while the rate in an invoice (in case of successful routing) may be calculated differently. Suppose the *Bill by segments, calculate routing rate by message* mode is set in the product. Every segment of a long message will be billed, but the routing rate will be calculated for one single message: a client is sending a long message (that contains 2 parts); each part will cost 0.5 EUR. In this way, during the routing step the rate will be 0.5 EUR - and the margin will be checked correspondingly. Suppose the vendor has the *Bill by segments* mode enabled and its rate 0.4. In this case, the margin will be calculated as $0.5 - (0.4 * 2) = -0.3$ (not as $0.5 - 0.4$). Since the margin is negative, the message will be rejected (the default behavior). To allow negative margin the rule's condition must be configured correspondingly (for example, $MRG > -0.5$). The client's invoice will be generated for $0.5 * 2 (=1)$ EUR.

NOTE: The *Bill by segments* option has no effect on concatenated messages (since they have already been split into separate messages), and HTTP messages received with the `longMessageMode=cut` (such messages will be trimmed) or `longMessageMode=split` or `longMessageMode=split_sar` (the messages will be split to several segments and processed as separate ones). Therefore the mode *Bill by segments* is similar to the *Bill by message logic* in this case.

NOTE: Long messages are not separated by the Alaris switch and processed as is (irrespective on the protocol - SMPP or HTTP in case of unspecified `longMessageMode`). To change the behaviour when a message is sent to a provider over HTTP, specify the `longMessageMode` parameter in the channel's *URL template*.

2) How do I bill a vendor based on delivered messages only? Which statuses will be considered by billing?

The billing option is set in the [Carriers\Products](#) ^[103] tab >> *SMS billing option*. The available variants are: *attempts* (all messages), *sent* (submitted messages), *delivered* (only messages with *DELIVRD* and *ACTIVATED* statuses), *reported* (any messages with statuses from delivery reports - like *EXPIRED*).

The interface [SMS\Reference books\Billing status presets](#) ^[286] contains presets named according to the *SMS billing option*. Each preset contains a list of statuses for which a product will be billed.

NOTE: If the *SMS billing option* is changed and you need to apply the option to the past traffic (for example, to rebill a vendor only for a delivered message), EDR files must be recalculated ([SMS\EDR management\EDR rerating](#) ^[232] interface) and then the corresponding invoice must be recalculated as well (*Recalculate invoice* button).

3) Is it possible to create a custom preset for the 'SMS billing option' of the Carriers\Products interface to bill a specific customer?

It is possible to add a status to the default presets via the support team. Also, it is possible to create custom presets by cloning the existing ones or adding statuses manually.

NOTE: The statuses unknown to the System that are received in delivery reports are automatically added to the *Bill by attempts* and *Bill by submitted* presets.

4) How can invoices under products with different directions of one carrier be generated in a single file? How can I separate invoices for client and vendor directions?

The *Invoice group index* option (in ([Carriers\Products](#)^[103])) defines how invoices for different products (or different directions) of the same account should be created. Decimal values are supported.

Suppose 3 products are available: *X - Wholesale (Vendor)* with group index 1.1, *X - Wholesale (Client)* and *X - Premium (Client)* with the same value 1.2 set in the parameter *Invoice group index*. The PDF invoice file will be single while traffic details will be separate for the vendor and client products (since the fraction is the same for the client products and different for the vendor). However, if you select the checkbox *Generate 1 invoice details file per product type* in [Carriers\Agreements](#)^[117], the System will generate a single traffic details file for the products containing a dedicated column with the product name.

Note that the default behavior is defined by the parameter *Default charge grouping mode* (1 - separate invoices for client and vendor side; 2 - separate invoices for each product; 3 - separate charges within 1 invoice) set in [Administration\System settings\Financial module](#)^[45].

5) Why has an invoice been created with the billing period different from the agreement's period?

This may happen in case a user closed billing period before the invoice was generated correctly (*Close billing period* button). Another common reason is a change in the agreement. To fix it, it is recommended to recalculate period for the problematic account (*Recalculate period* in [Finance\Invoices](#)^[142]).

6) Why has no invoice been generated for a partner once the billing period ended?

If the financial cubes for the billing period are not calculated yet (for example, the data is being changed), the invoice will not be generated until the cubes are ready. You can check this in the report *SMS Analytical cube status* (*Administration*). Specify *Period: Financial* and check the *EDR/DLR state* columns for the billing period.

NOTE: Check *DLR state* if the SMS billing option parameter is set to *Bill by delivered* or *Bill by reported*. Otherwise check only the *EDR state* column.

An additional delay is defined in the parameter *Invoice generation delay, hours* ([Administration\System settings\Financial module](#)^[45]), which sets the delay of generation once the financial data is ready.

Also invoices may not be generated in case the product option *Is billable* is disabled, if there was no traffic (or the invoice amount is less than the agreement setting *In/out minimum invoice amount* or the System setting *Global minimum invoice amount*). In case some parameters of the agreement (such as *In/Out billing period*) have been changed, the changes may affect generation as well.

7) How can I re-bill a client if the invoice has been already generated but the client rates were changed with past dates?

Rerate EDRs first ([SMS\EDR management\EDR rerating](#)^[232] interface) and once financial cubes have been recalculated, recalculate the invoice (*Recalculate* button in the [Finance\Invoices](#)^[142] interface). The cube status can be checked in the report *SMS Analytical cube status* (*Administration*). Specify the filter *Period: Financial*. If the *EDR state* and *DLR state* show *Ready*, and the value *Last change* is recent (10 minutes ago, for example), the cubes have been recalculated. In case the *EDR/DLR state* show *Must be recalculated*, it is obligatory to wait until the *State* changes to *Ready*.

8) How can I apply a new template to an already generated invoice?

Once a new invoice template (*Invoice\Invoice details*) is uploaded to the [Administration\Template manager](#)^[75] interface, recalculate the invoice (*Recalculate* button in the [Finance\Invoices](#)^[142] interface).

9) What is the difference between the 'Recalculate' and 'Recalculate period' buttons?

The *Recalculate* button is normally used when only financial data has been changed (for example, due to rate changes) or there was some modification in the templates. *Recalculate period* is used when:

- 1) The agreement data has been changed - for example, *Billing period* ([Carriers\Agreements](#)^[111] tab) or *Invoice group index* ([Carriers\Products](#)^[103] tab)
- 2) The agreement timezone has been changed - but in order to avoid any discrepancies with the partner, period recalculation must be performed starting with the agreement start date
- 3) The invoice group index has been changed, so invoices must be generated based on the new value

10) Is it possible to delete an unnecessary invoice?

It is not possible to remove invoices from the web interface since they are based on actual processed data and its removal will affect the carrier's balance. If necessary, this can be done by the support team. Please note that the balance will be affected - also deleted invoices will be re-generated once EDR rerating for the period will take place.

11) What does the status 'Dispatch failed' mean?

The status means that for some reason the invoice could not be sent. To check what is the problem, point the mouse cursor to the status. The most common reasons are: financial cubes are being recalculated or there is an issue with the mail server ([Administration\Outgoing email accounts](#)^[26], the parameter *Server type = Billing*).

12) What is a credit note?

A credit note is an additional invoice with a negative amount that is generated by the System in case of a change in financial data for a past period. For example, if a client's balance must be corrected due to discrepancies (for example, the initially generated invoice shows 1100 as the total amount but the client should actually pay 1000), a credit note will be created. The behavior how to change a confirmed invoice is defined by the System setting *Invoice correction type* (1 - replace invoice, 2 - correct last invoice) in [Administration\System settings\Financial module](#)^[45].

13) Why can balance be changed when there is no traffic?

A newly added or deferred payment ([Finance\Payments](#)^[15] interface) can affect the carrier's balance. For example, if a client's balance is 2,000 USD, the payment with amount to 2,500 and the direction: to partner is created, the client's balance will be -500 USD. A deferred payment affects the balance in another way: suppose that a draft (non-confirmed) payment with *Expiry date: 01.01.2019 00:00:00* for a client has been created for 500 USD, but in case the payment is expired (not confirmed till 01.01.2019 00:00:00), 500 USD will be subtracted from the client's balance and it may go negative.

Another case is deletion of a client's payment with direction: from partner. If a client balance previously was -300 EUR, then the payment for 500 EUR was added, the balance is 200 EUR. Once the payment is deleted, the balance will go negative again.

Recalculation of previously processed traffic can also affect the balance.

14) Why does the 'Billable (C)' column in Analytics show messages, but the client is not billed?

The column shows the amount of messages in accordance with which a client can be potentially billed (in compliance with the product billing option). However, if, for example, the *Is billable* option is disabled (or was when the traffic was passing), the client will not be billed for the messages. Additionally, in case the invoice amount is less than the value set on the agreement level (*In/out minimum invoice amount*) or (if the agreement option is not specified) than the System setting *Global minimum invoice amount* value, no invoice will be generated. The same happens if a rate was deleted after the traffic passed.

15) Which payment systems are supported by Alaris?

The Wholesale Portal supports the following systems:

- [Authorize.net](#)
- [PayPal](#)
- [Payonline](#)

The Alaris Campaign Portal supports all the above plus the following systems:

- [MobiMoney](#)
- [PayU](#)
- [Secure Trading](#)
- [Stripe](#)

21.9 SMS analytics

1) Why are there 'Unknown partner' and 'Deleted partner' in Analytics?

Deleted partner means that the traffic has passed through a POI but it was deleted afterwards (the match is based on POI ID). Once EDR rerating is performed, *Deleted partner* will be changed to *Unknown partner*.

Unknown partner means that it was not possible to match EDR data with the System data. For example, if the POI's service type was changed (or the client was sent a submit request with a service type other than the one specified in the corresponding POI).

2) Why does the Analytics show only the last N periods even if the selected period is longer?

The period within which analytical cubes (minute, hour, day, week, month) are stored in the System is defined in [Administration\System settings\SMS analytics](#) ⁶² >> *Minute\hour\day\week\month cube partition count*.

Prior to changing the values it is recommended to consult the support team (since changing the parameter leads to recalculating the cubes and as a result affects the System workflow. In the worst-case scenario, when the number of cubes is increased drastically, the database may consume all the available disk space and the System will stop responding).

3) Why can there be delays in the Analytics update?

Analytical cubes may be recalculated slowly due to rerating tasks launched for a long period or in case the parameters responsible for the number of statistical cubes are changed (*Minute/Hour/Day/Week/Month cube partition count*). In some cases statistics may be updated slowly due to thresholds specified in [Administration\System settings\SMS analytics](#)^[62] >> *Stats calculation threshold (EDR/<corresponding cube type>)* and *Stats calculation delay, minutes (<corresponding cube type>)*. A cube is recalculated if:

- 1) X new EDRs are imported where X is less than *Stats calculation threshold*, but n minutes since the first EDR import into that cube have already passed (where n is *Stats calculation delay*) or
- 2) X new EDRs come to the System where X is greater than *Stats calculation threshold*. Note that it is not recommended to change the values without consulting the support team first since it leads to almost constant recalculation of practically the same data. Additionally please note that all values are calculated automatically based on the daily traffic volume.

4) Which permissions must be granted to a user to check traffic of its carriers in the Analytics?

A set of roles from the *SMS analytics* section ([Administration\Users](#)^[97]) must be granted. For example, to check the client data, the *View all client data* permission must be given to the user. Additionally, to show only allowed clients, go to the *View/edit permissions* section of the [Administration\Users](#)^[97] interface. For example, to find data only of managed carriers, the *View and edit objects of managed accounts* must be enabled.

Note that there is a System setting that specifies how to reflect the total data in the Analytics: *Calculate analytics total depending on VPD* - if set to 1, the analytics' *Total* row will be calculated and shown in accordance with permissions configured for a user on the [Administration\Users](#)^[97] tab. Some traffic may not be taken into account (for example, if the user has permission to check data of client X and vendor Z but is restricted to check data of vendor Y, the traffic passed from client X to vendor Y will not be calculated for the *Total*).

5) Why can ASR be more than 100%?

In case of rerouting based on delivery reports (configured in [Carriers\SMS channels](#)^[120]), ASR for the last hours may be greater than 100%. For example, if a message is sent to a vendor and the delivery status checked in *Reroute statuses* is received, the message will be sent to the next-in-line vendor, thus there will be 1 attempt for 2 successfully sent messages (2/1 – therefore ASR will be 200%).

The situation will be corrected in a period specified in the [Administration\System settings\SMS](#)^[56] parameter *Is_last flag update delay (hours)\Is_last flag update window frame (hours)*. The logic is as follows: the System job *SMS_UPDATE_CDR_LAST* runs twice an hour and checks all EDRs between *Update delay+Update window frame* and *Update window frame* - and the flag *Is last* for messages that are not last (in case of rerouting based on delivery statuses) is removed. For example, if both parameters are set to 24 (hours), once the job is launched, the System checks the period between the last two days and the last day.

NOTE: The number of messages for which successful submit responses have been received from vendors (*Successful* column) is not recalculated, and all messages (even non-last attempts) are shown. This leads to display of ASR greater than 100%.

6) What does the 'Reported' column mean in Analytics?

The column shows all delivery statuses (for example, *Delivered* shows only the *DELIVRD* and *ACTIVATED* statuses) - the statuses may be found in [SMS\Reference books\Billing status presets](#)^[286] >> *Bill by reported*.

21.10 Alaris Campaign Portal

1) Is it possible to provide customers with a domain name for the Campaign Portal and/or client portal?

Yes, domain name(s) must be pointed to the IP address where the web module is installed (web file server). After that, the domain name must be provided to the support team for further internal configuration change.

2) Is it possible to change the Campaign Portal logo and its title? Is it possible to remove the 'Powered by Alaris' logo?

The Alaris Campaign Portal logo and title can be changed, as well as the Campaign Portal color scheme - please provide them (in png format) and the new title to the support team. Removal of *Powered by Alaris* logo must be discussed with the account manager first.

3) How do I create a Campaign Portal customer correctly?

To enable message sending from the portal, all entities must be created not manually but automatically. The scenario is as follows:

- The carrier, user, account and agreement are created when you click the *create Campaign Portal client* button (in the main web interface: [Carriers\Carriers](#)^[99]) and fill all the necessary fields (or when your customer proceeds with registration from the portal)
- The product, SMS channel and SMS POI are created once you apply the rate plan ([Carriers\Products](#)^[103] >> *Apply rate plan for Campaign Portal client*) or subscribe the client to a pack ([Campaign Portal\SMS pack user subscription](#)^[358], *Apply package to account* button; the same can be done from the *Purchase* tab in Alaris Campaign Portal)

SMS packs can be created in the main web interface: [Campaign Portal\SMS pack](#)^[356]. Subscription to a specific account can be applied in the [Campaign Portal\SMS pack user subscription](#)^[358] interface.

A rate plan is a parent product that is created under the *System owner* carrier with the same account's currency. It is possible to assign a rate plan from the main web interface (*Apply rate plan to Campaign Portal client* button) or from the Campaign Portal (*Purchase* tab). Note that the rate plan cannot be changed once it is applied.

It is possible to assign a default rate plan to newly registered users through the System setting *Default sms rate plan (Product ID) for new Campaign Portal clients (null - do not add rate plan)*. Additionally, rate plans (in case there are several in the System) can be hidden from the Campaign Portal through the System setting *Available product IDs (null - All)*. You can specify only those parent product IDs that must be visible.

If the System setting is not configured (*null* value) and no rate plan is assigned to the client over the main web interface, all applicable rate plans will be available in the *Purchase* tab of the Campaign Portal. Applicable rate plans are rate plans of the System owner carrier.

NOTE: Account currencies should be the same - for example, if a Campaign Portal user has a EUR account, the rate plan of the System owner product under a USD account will not be shown.

4) What is 'Forbidden; host: xxx' error?

The message means that the domain name (the host) must be added to [Reference Books\Contract companies](#)^[164] >> *List of allowed domains* field.

5) How can I hide the client balance from the Campaign Portal?

Disable the permission *Show finance info* in [Administration\Users](#) [97] >> *Roles* of the main web interface.

NOTE: Other financial information such as campaign cost and rates will be hidden as well.

6) How can I automatically add a payment to all newly registered partners?

The initial balance can be assigned to all clients in [Administration\System settings\Partner portal](#) [57] >> *Initial payment for new Campaign Portal clients* (in account currency). On the contract company level it can be set in [Reference books\Contract companies](#) [164] >> *Initial payment for new Campaign Portal clients*.

7) What does error '400' mean when a message is sent from the Campaign Portal?

Error 400 means 'no routes'. Please recheck the routing configuration in the main web interface.

8) Are MO messages shown in the Campaign Portal?

They are shown in the *Statistics* tab in case the MO has been received within the predefined timeout (set in [Administration\System settings\Partner portal](#) [57] >> *MO matching window frame, min*) for the corresponding Campaign Portal MT message. The match also depends on the numbers - the sender ID of the MO message must be the same as the destination address of MT message; the destination address of MO message must be the same as the sender ID of the MT message).

21.11 Reports

1) Is it possible to send a report every day to an email address?

Yes, it is possible - the report schedule and sending parameters can be specified in the *Reports* interface. If a required report is selected and the *Is recurrent* option is enabled, the parameters are available for specification. Once the schedule is set, do not forget to save changes (*Save* button).

2) How do I check if a report has been sent from the System?

If the report schedule is configured, but you did not receive the email (while *Last run* shows that the report has been launched), double-check the situation using the report '*System log (Administration)*'. The *Operation* field must be filtered by %mail% and the report name or email address must be specified in the *Message* field, for example: %Client traffic%.

Additionally, it may come instrumental to specify the approximate send time (as a mask) in the *Time* field, for example, 2019.01.01 11:4%. Once the record that the email has been added to queue is found (it can start with *New mail added to queue..*), copy the record ID from the log (...*record_id*:"10721"...) and specify it as a filter in the *Message* field of the report (*10721*). If the report was sent, there will be a record *Mail successfully sent; record ID: 10721*. In case there is no record, it is recommended to filter the *System log* by the *error* word in the *Event type* field. If there were issues with the mail server, corresponding records will be shown (*Failed to send mail....*).

NOTE: Reports with empty results are not sent to email addresses.

3) Is there a report in the System that shows client traffic stats for a day? How can I configure it for sending to clients?

The report is called *Client traffic (Day) (SMS Stat)*, and if it contains a filter by products, it can be sent to the clients' addresses (in case there is no filter, please contact the support team to add it). To configure sending a report to clients use custom presets (where each preset contains a specific client set in the *Product* filter), or the [Administration\Report schedule](#) interface. The *Report* field must be set as *Client traffic (Day) (SMS Stat)*. The *SQL code* field must contain the following code:

```
select
product_id as "p_prod\n",
trunc(sysdate-1) as "dfrom\d",
trunc(sysdate) as "dto\d",
agr_fin_alert_email as "p$mailto"
from bas_product_v
left join bas_agreement on agr_acc_id = acc_id
where product_id = x
```

where x must be replaced by product ID. The row *agr_fin_alert_email as "p\$mailto"* means that the report will be sent to the email address specified in *Default invoice emails* of the corresponding agreement; also, the row can be replaced by the static value as *'put_email_address_here' as "p\$mailto"*

4) How can I save custom settings of a report?

They can be saved in a custom preset. Once you have changed the filters (and configured the schedule if necessary), click *Save as* (next to the report name) and specify the preset name. Then the preset can be chosen from the *User presets* drop-down list

5) How can I change the report description and mail parameters for the report sending?

At the moment it is not possible to change mailing parameter (such as the email body or subject). The report description can be edited in *Reports >> Edit report >> Description* field. If you need to remove the header from the generated file, the system setting *Add report info to file header* ([Administration\System settings\Common](#)) must be set to 0.

6) Why may operation of exporting a generated report to Excel/CSV take some time?

Exporting a report to a file takes as much time as the report launch takes. If the report must check a lot of data and its launch takes much time, export will take the same time. To reduce it, it is suggested to specify additional filters in the report parameters.

7) How do I find test messages in the 'EDR Export (SMS)' report?

Test messages (sent from the [SMS\Routing\Simulation](#) >> *Send SMS* interface) are available if the report is launched with the selected *test EDRs* checkbox.

8) Why is the field 'SMS status code' in 'EDR Export (SMS)' report sometimes filled and sometimes not?

The field shows a code if no routes have been found for the message. The description of the codes can be found below:

```
2000001 Cannot find MCCMNC for dnis
2000002 Cannot find client account currency
2000003 Client credit limit exceeded
```

2000004 Client rate not found
2000005 No vendor rates found
2000006 No routes found due to vendors' parameters (credit limit/channels/POIs)
2000007 Routes found but filtered by vendor channel TON/NPI filter
2000008 Routes found but filtered by rules
2000009 Client inbound traffic is prohibited
2000010 Client POI or channel not found
2000011 Client product not found
2000012 Message limit exceeded, client product blocked
2000013 Client channel disabled
2000014 Client account not found
2000015 Client agreement is outdatedf
2000016 Client POI is outdated
2000017 Client carrier not found

9) Why can execution of the report 'EDR Export (SMS)' may take so long?

In case the report is launched with default parameters (all traffic for the current day) or for a longer period, it will check all EDRs for the period. Therefore it is recommended to shorten the period and/or specify filters: message ID, client/vendor products (do not forget to specify the type of the list: inclusive or exclusive), SRC number, DST number, etc.

If you need to download EDRs for a long period, please use the [SMS\EDR management\EDR export tool](#) interface since there is a timeout (15 minutes) for report execution in the web interface. Additionally, you can use the interface to specify a set of columns that must be exported.

10) Why are some users unable to find report X?

The permission that must be granted to make a report visible can be found in *Reports >> Edit report >> Available to*. For example, if the field contains the *View administration reports value*, a user must have the permission granted in the [Administration\Users](#) >> *Roles* section to view the report.

11) Is it possible to modify a report - to add new columns, remove some of them, or add new filters?

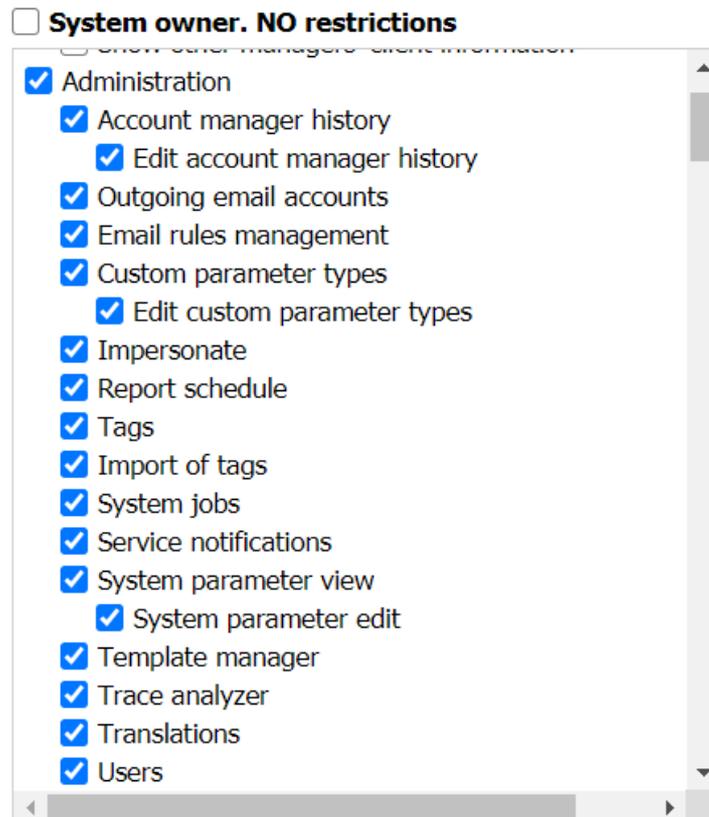
Yes, a report can be modified. In most cases changes are made by the support team, but if you have engineers familiar with SQL, a new report can be created by the *New report* button and the database structure can be found in the report *DB struct (Info)*.

22 Appendix 8. User permissions

This Appendix provides a detailed description of permissions that are configured in [Administration\Users](#)^[97]. Some permissions are VPD restricted.

NOTE: VPD (virtual private database) is an Oracle security feature intended to isolate data based on the user's roles and permissions. VPD policies allow managing data based on granted permissions. The section that controls VPD policies in the System is the *View/edit permissions* section ([Administration\Users](#)^[97] -> *Roles*). The permissions may affect other roles - in that case, a dependent permission will be marked as *VPD restricted* in this Appendix. For example, the [Carriers](#)^[99] interface is VPD restricted. Suppose a user has the permission *View and edit objects of own contract companies*. In this case the user will be able to manage data in the interface only for carriers belonging to the same contract companies. Another example is the [Administration\Outgoing email accounts](#)^[26] interface. suppose the user has only *View and edit objects of own contract companies* permission granted and the user's contract company is test ([Administration\Users](#)^[97] -> *Contract companies*). In this case none of the mail servers created for different contract companies ([Administration\Outgoing email accounts](#)^[26] -> *Contract company* field) will not be shown to the user. An example of VPD-independent interface is [SMS\Routing\Routing rules](#)^[292] - all rules will be shown irrespective of the granted permissions in the *View/edit permissions* section. Note that the names of products inaccessible to the user will be replaced by the IDs (for *Client products list* and *vendor choices*).

22.1 Administration



Administration

If no child permission is granted under the section, only the *Administration\Translations* interface will be shown to the user (if the permission *Translations* is granted). Otherwise the tab *Administration* will be hidden entirely.

- *Account manager history*: the permission must be enabled in order to view the [Administration\Account manager history](#)^[20] interface. *VPD restricted*
 - *Edit account manager history*: the permission allows to edit records in [Administration\Account manager history](#)^[20] interface (assign an account manager or delete records). In case the permission is not granted, the *Set account manager* button is hidden from [Carriers\Accounts](#)^[109]
- *Outgoing email accounts*: the permission makes it possible for the user to view/edit data in [Administration\Outgoing email accounts](#)^[26]. *VPD restricted*
- *Email rules management*: the permission grants possibility to view/edit data in [Administration\Email processing rules interface](#)^[22]. *VPD restricted*
- *Custom parameter types*: the permission defines if the user is allowed to view data in [Administration\Custom parameter types](#)^[2] interface
 - *Edit custom parameter types*: the permission defines if the user is allowed to edit data in [Administration\Custom parameter types](#)^[2] interface
- *Impersonate*: when the permission is granted, the user can login to the main web interface, get authorized via REST API interface and Alaris Campaign Portal using another user's identity (adding its login to the username after # in the format yourlogin#otherusername) with its own password. The feature can be used to login to the Wholesale portal if it is not used for the System owner carrier. Note that in case the user makes any changes, change logs will contain the "otherusername" (the login of the user on behalf of which another user logged in to the System)
- *Report schedule*: the permission makes it possible to manage data in the [Administration\Report schedule](#)^[28] interface. Note that viewing the names of reports that the user is not allowed to run is restricted. For example, the report *System log (Administration)* requires the user permission *View administration reports (can be checked in Reports -> Edit report -> Available to)*. If this permission is not granted for the user and if there is a schedule for the report in the [Administration\Report schedule](#)^[28] interface, the report name will be replaced by the report ID (for example, ID: 66 will be shown instead of *System log (Administration)*). The same principle applies to permissions from the *View/edit permissions* section ([Administration\Users](#)^[9] tab): suppose the user has contract companies A and B and a schedule for the report *System log (Administration)* has been created for *Contact company: test*. In this case the user will be allowed to view the data in the [Administration\Report schedule](#)^[28] interface except for the contract company name (it will be replaced by the contract company ID as well)
- *Tags*: the permission defines if user is allowed to view data in the [Reference books\Tags](#)^[160] interface. The user must have the *Routing rules edit* permission enabled in order to edit tags (located under the SMS routing rules view permission)
- *Import of tags*: the permission grants possibility to if the user is allowed to import tags via [Reference books\Tag import](#)^[162] interface
- *System jobs*: the permission defines if the user is allowed to view/edit data in the [Administration\System jobs](#)^[34] interface
- *Service notifications*: the permission makes possible to view data in the [Administration\Service notifications](#)^[32] interface. *VPD restricted*. Note that user with the *View all data* permission will be allowed to edit notifications
- *System parameter view*: the permission allows the user to view data in the [Administration\System settings](#)^[34] interface

- *System parameter edit*: the permission makes it possible to view and edit data in [Administration\System settings](#)^[34] interface
- *Template manager*: the permission grants the possibility to view/edit data in the [Administration\Template manager](#)^[75] interface. If the permissions *View objects of own accounts* and *View and edit objects of own contract companies* are enabled, the user cannot see templates belonging to other users accounts and contract companies respectively. *VPD restricted*
- *Trace analyzer*: the permission defines if the user is allowed to access the [Administration\Trace analyzer](#)^[89] interface. The user will be able to find other users' tasks only in case the user either has the permission *View all data* or *View and edit all data*. *VPD restricted*
- *Translations*: the permission makes it possible to show/hide the *Administration\Translations* interface
- *Users*
 - *User administration*: when granted, it allows the user to change permissions of other users ([Administration\Users](#)^[91] -> *Roles*), otherwise the user can edit (revoke) its permissions. Note that the user A cannot modify other user's permissions (user B) in case user A does not have permissions which the user B has - for example, if user B does not have the *Edit rates* permission, user B cannot either grant to or revoke *Edit rates* from user A
 - *Manual password change*: the permission allows the user to change the password manually ([Administration\Users](#)^[91] -> *User password change*). Otherwise it is allowed to change the password only by email ([Administration\Users](#)^[91] -> *Send password reset letter*)

22.2 Carriers

- Carriers
 - Accounts edit
 - Agreements edit
 - View contact emails in agreements
 - View credit limits in agreements
 - Edit credit limits in agreements
 - Carriers edit
 - Products edit
 - Delete products with dependencies
 - Voice POI edit

Carriers

The section is intended to grant permissions of editing main entities of the [Carriers](#)^[99] interface. *VPD restricted*.

- *Accounts edit*: the permission allows editing accounts ([Carriers\Accounts](#)^[109]). Note that to delete an account and dependent objects (*Delete this account and all child components* button) the user must have the *System owner. NO restrictions permission*
- *Agreements edit*: the permission allows editing agreements ([Carriers\Agreements](#)^[111])
 - *View contact emails in agreements*: if the permission is enabled, notification emails will be shown, otherwise - hidden as shown below. Note that the permission works together with *View all data* and *View and edit all data* permissions

Default invoice emails:	<input type="text" value="*** hidden ***"/>
Default rate change emails:	<input type="text" value="*** hidden ***"/>
Default technical emails:	<input type="text" value="*** hidden ***"/>
	<input checked="" type="checkbox"/> Include in service notifications
Account alert emails:	<input type="text" value="*** hidden ***"/>

Notification emails hidden

- *View credit limits in agreements*: if the permission is given, the values (*In/Out credit*) will be shown, otherwise - hidden irrespectively of given permissions from *View/edit permissions*
 - *Edit credit limits in agreements*: if the permission is enabled, it is additionally allowed to change *In/Out credit* fields
- *Carriers edit*: the permission allows editing carriers ([Carriers\Carriers^{\[99\]}](#)). Note that to delete a carrier and dependent objects (*Delete this carrier and all child components* button) the user must have the *System owner*. *NO restrictions* permission
- *Products edit*: the permission allows editing products ([Carriers\Products^{\[103\]}](#)).
 - *Delete products with dependencies*: the permission allows using the *Delete this product and all child components* button ([Carriers\Products^{\[103\]}](#))

22.3 Partner portal

- Partner portal
 - Campaign portal user administration
 - Show purchase tab
 - Show packs
 - Show rates tab
 - Show balance
 - Show finance info
 - Show message content
 - Show graphs
 - Campaign Portal
 - Wholesale partner portal
 - Export CDRs/EDRs

Partner portal

If the permission is granted with no specification of child permissions, the user will not be able to login to the portals (both Alaris Campaign Portal and Wholesale portal) and check the portal data.

- *Campaign portal user administration*: the permission has effect only on Alaris Campaign Portal and allows modifying Campaign Portal users' info on the portal's *Administration* tab. Additionally a user with this permission can use the portal to reset the passwords of other users registered under the same carrier
- *Show purchase tab*: the permission affects whether the user can view the *Purchase* and *Invoices* tabs of Alaris Campaign Portal and *Invoices* and *Payments* tabs of the Wholesale portal. The

Invoices tab contains confirmed invoices of the user's carrier - downloading of them will be allowed as well if the permission is granted

- *Show packs*: defines whether SMS packs available for subscribing will be shown on the *Purchase* tab in Alaris Campaign Portal
- *Show rates tab*: defines whether non-applied rate plans will be shown. Additionally, the permission hides *Plan details* of the applied rate plan (*Purchase* tab) in Alaris Campaign Portal. In case the permission is disabled, the *Rates* tab is hidden from the Wholesale portal
- *Show balance*: defines whether balance should be shown in Alaris Campaign Portal (*Dashboard* and *Purchase* tabs, and the main menu) as well as the *Top up your balance* button on the *Purchase* tab. See also the [Alaris YouTube](#) video
- *Show finance info*: the permission grants the possibility to hide the *Cost* and *Balance* info from the *SMS stats* tab (Wholesale portal). In Alaris Campaign Portal it serves to hide the *Buy subscription* button in case of unsuccessful message submitting as well as hide the cost of campaigns (*Campaigns* -> *Details*) and packs (*Average price per SMS*)
- *Show message content*: if the permission is granted, REST API method GET:edr will contain the message text, otherwise the value is hidden (the field will contain the *Message content hidden* value instead of the message text)
- *Show graphs*: if the permission is enabled, charts are displayed on the *Dashboard* page of Alaris Campaign Portal
- *Campaign Portal*: the permission allows to login to Alaris Campaign Portal. Note that Alaris Campaign Portal domain name has to be added to the field *List of allowed domains* ([Reference books\Contract companies](#)^[164]) of the corresponding contract company for successful login
- *Wholesale partner portal*: the permission allows to login to the Wholesale portal. Note that the portal domain name must be added to the field *List of allowed domains* ([Reference books\Contract companies](#)^[164]) of the corresponding contract company for successful login
 - *Export CDRs/EDRs*: the permission allows to create export tasks in the Wholesale portal

22.4 Delete file records

- *Delete file records*: the permission allows removing files from [SMS\Rates\Rate import](#)^[258] and [Administration\Email processing rules](#)^[22] (both the *Letters* and *Files* tabs).

22.5 DID management

- DID management
 - Edit DID records
 - Override DID statuses

DID management

The section opens access to the [DID management](#)^[368] interface. The user will be able to view product names based on View/edit permissions. If the user is not allowed to view data (for example, it does not belong to the appropriate contract company while having only the *View and edit objects of own contract company* permission granted), the product ID will be shown instead of the name (the *History* tab will show hidden values as well).

- *Edit DID records*: the permission allows editing DID records (add, assign, deassign them etc). Note that the *Product* control (for example, when the user is assigning a DID record) will contain

the list of products available to the user based on the *View/edit permissions* section. If the permission is disabled for the user, the user will not be able to add records on the *Billing scheme* tab and use the *Import* functionality

- *Override DID statuses*: the permission allows changing the status to archived/aging records

22.6 Edit rates/routing permissions

- Edit rates\routing permissions
 - Edit client rates and routes
 - Edit vendor rates and routing
 - Edit client rates/routing for own accounts
 - Edit vendor rates/routing for own accounts

Edit rates/routing permissions

The section grants permissions for editing rates and routing rules. Additional restrictions are set in the following sections: *SMS rate edit* section and *SMS routing rules edit*

- *Edit client rates*: if the permission is granted, the user is allowed to edit client rates through the [SMS\Rates\Rate editor](#) [244] interface. If the permission is granted together with *Edit client rates/routing for own accounts*, the user is allowed to edit client rates only of its own account. If the permission *Edit client rates/routing for own accounts* is not granted while *Edit client rates* is, the user can edit client rates in accordance with permissions given in the *View/edit permissions* section. Note if the user has the *Rate import* permission, the operation of import will be allowed if the task does not affect rates that cannot be changed by the user
- *Edit vendor rates*: if the permission is granted, the user is allowed to edit vendor rates through the [SMS\Rates\Rate editor](#) [244] interface. If the permission is granted together with the *Edit vendor rates/routing for own accounts* permission, the user is allowed to edit vendor rates only of own account. If the permission *Edit vendor rates/routing for own accounts* is not granted while *Edit vendor rates* is, the user can edit vendor rates in accordance with permissions given in the *View/edit permissions* section. Note if the user has the *Rate import* permission, the operation of import will be allowed if the task does not affect rates that cannot be changed by the user
- *Edit client rates/routing for own accounts*: if the permission is granted together with the *Edit client rates* permission, the user is allowed to edit client rates and routing only for its account. If the permission is granted while *Edit client rates* is not allowed, the user will be able to modify only the routing rules that affect its account. For example, with the following set of permissions:
 - *Edit client rates/routing for own accounts* - granted
 - *Edit vendor rates/routing for own accounts* - granted
 - *Edit client rates* - not granted
 - *Edit vendor rates* - granted
 - *Edit routing rules* - granted

the user will be able to modify a routing rule that contains an inclusive *Client products* list the products of which belong to the user. However, the user will not be allowed to edit a rule where an exclusive *Client products* list contains products belonging to the user (since the user will exclude its own products from routing, which affects other users' traffic)

- *Edit vendor rates/routing for own accounts*: if the permission is granted together with the *Edit vendor rates* permission, the user is allowed to edit vendor rates and routing only for its account. In case the permission is granted while *Edit vendor rates* is not allowed, the user will be able to modify only those routing rules that affect its account. For example, with the following set of permissions:
 - *Edit client rates/routing for own accounts* - granted
 - *Edit vendor rates/routing for own accounts* - granted
 - *Edit client rates* - granted
 - *Edit vendor rates* - granted
 - *SMS routing rules edit* - granted
 - *View and edit all data (except System owner parent rates)* - not granted

the user will be able to modify a routing rule that does not contain the System owner's products in the *Products* list

22.7 Enterprise API

- *Enterprise API*: the permission grants access to the Enterprise API module.

NOTE: The module operates through REST API and has extended methods for controlling the System to allow for greater security. One of the methods serves to work with charges - and the *Charges* permission must be granted as well to enable it. To configure the module, contact the Alaris technical support team and communicate the code BZ35475.

22.8 Finance

- Finance
 - Charges
 - Invoicing
 - Confirm vendor invoice
 - Confirm client invoice
 - Register vendor invoice
 - Generate client invoice
 - Payments
 - Confirm vendor payment
 - Delete registered vendor payments
 - Confirm client payment
 - Delete registered client payments
 - Register payments to vendor
 - Register payments from client
 - Recurring fees
 - Recurring fees edit

Finance

The section is intended for granting financial permissions. Note that in order for the Finance tab to be shown under the *Start* menu, at least one child permission must be granted.

- *Charges*: the permission defines whether the user can view data in the [Finance\Charges](#)^[136] interface. Additional restrictions/permissions can be set in the *View/edit permissions* and *Invoicing* sections
- *Invoicing*: the permission allows to view data in the [Finance\Invoices](#)^[142] interface. *VPD restricted*
- *Confirm vendor invoice*: the permission allows confirming invoices from partner and credit notes to partner. If both permissions: *Confirm vendor invoice* and *Register vendor invoice* : are granted, the user can add/edit payable charges with the enabled checkbox *Create/update invoices* ([Finance\Charges](#)^[136] interface), edit invoices from partner and credit notes to partner and recalculate period for accounts with the vendor direction ([Finance\Invoices](#)^[142] interface)
- *Confirm client invoice*: the permission allows confirming invoices to partner and credit notes from partner. If both permissions: *Confirm client invoice* and *Generate client invoice* : are granted, the user can to add/edit receivable charges with selected checkbox *Create/update invoices* ([Finance\Charges](#)^[136] interface), edit invoices to partner and credit notes from partner and recalculate the invoice period for accounts with the client direction ([Finance\Invoices](#)^[142] interface)
- *Register vendor invoice*: the permission allows the user to delete and recalculate payable charges; delete, clone and import payable charge details (the bottom grid of *Charges* interface); recalculate invoices and close billing period from partner/credit notes to partner. Note that to change charges, the permission *Charges* must be given to the user. *VPD restricted*
- *Generate client invoice*: the permission allows to delete and recalculate receivable charges; delete, clone and import receivable charge details (the bottom grid of the [Finance\Charges](#)^[136] interface); recalculate and close the billing period of invoices to partner and credit notes from partner. In order to modify charges, the permission *Charges* must be given to the user. *VPD restricted*
- *Payments*: the permission allows viewing data in the the [Finance\Payments](#)^[151] interface. *VPD restricted*
- *Confirm vendor payment*: the permission enables the user to create confirmed/confirm/import payments to a partner if the permission *Register payments to vendor* is granted as well. If the permission is granted together with the permission *Confirm client payments*, the user will be allowed to synchronize balances (*Finance >> Payments*)
- *Delete registered vendor payments*: if the permission is granted, the user can delete payments to partner
- *Confirm client payment*: the permission allows to creating confirmed/confirm/import payments from a partner if *Register payments from client* is granted as well. if the permission is granted together with the permission *Confirm vendor payments*, the user will be allowed to synchronize balances
 - *Delete registered client payments*: if the permission is granted, the user can delete payments from a partner
- *Register payments to vendor*: the permission allows adding draft payments to a partner; additionally the user will be allowed to edit payments/add confirmed payments to a partner if the permission *Confirm vendor payments* is granted as well
- *Register payments from client*: the permission allows adding draft payments from a partner; additionally the user will be allowed to edit payments/add confirmed payments from a partner if the permission *Confirm client payments* is granted as well
- *Recurring fees*: the permission allows viewing data in the [Finance\Recurring fees](#)^[157] interface. *VPD restricted*

- *Recurring fees edit*: the permission allows editing data in the [Finance\Recurring fees](#)^[157] interface

22.9 View/edit permissions

- View/edit permissions
 - Edit parent products belonging to system owner
 - View and edit objects of managed accounts
 - View and edit objects of own contract companies
 - View and edit all data (except System owner parent rates)
 - View system owner objects
 - View all data
 - Manage objects of same carrier

View/edit permissions

The section is intended to grant overall System permissions to view and edit data in the interfaces where access can be restricted based on account manager/contract companies: for example, *Carriers*, *Finance*, etc. If no child permission is granted, the user will not be allowed to view data in the interfaces (e.g., [Carriers](#)^[99], [Reference books\Contract companies](#)^[164]) but records in some interfaces will be shown with hidden carrier/product/contract company names (for example, [SMS\Routing\Routing rules](#)^[293], [Administration\Report schedule](#)^[28]).

- *Edit parent products belonging to system owner*: the permission allows editing products created on behalf of the System owner carrier and its rates if the products are assigned as the *Parent product*
- *View and edit objects of managed accounts*: the permission allows viewing and editing data of carriers managed by the user
- *View and edit objects of own contract companies*: the permission allows viewing and editing data if it belongs to the contract company assigned to the user ([Administration\Users](#)^[91] -> *Contract companies* field)
- *View and edit all data (except System owner parent rates)*: the permission allows viewing and editing all data except for products created on behalf of the System owner carrier and product rates if the product is a parent one for another product
- *View system owner objects*: the permission allows viewing entities created on behalf of the System owner carrier
- *View all data*: the permission allows viewing all data
- *Manage objects of same carrier*: the permission allows viewing and editing objects of the carrier under which the user has been created

22.10 Post monitoring data

- *Post monitoring data*: if the permission is enabled, it is possible to use POST:monitoring_data method in REST API

22.11 Reference

- Reference
 - Contract company
 - Currency rates view
 - Currency rates edit
 - Product types
 - Company region
 - Units

Reference

The section allows specifying which tabs of the [Reference books](#)^[519] section can be shown to the user. Note that if no child permission is selected, only *Bank accounts*, *Tags*, *Tags import* tabs are shown. The latter two tabs are shown if *Tags* and *Import of tags permissions* are enabled correspondingly.

- *Contract company*: the permission defines whether the user can manage data on Contract company interface. VPD restricted
- *Currency rates view*: the permission gives access to view data in [Reference books\Currency exchange rates](#)^[171]
 - *Currency rates edit*: the permission allows editing data in [Reference books\Currency exchange rates](#)^[171]
- *Product types*: the permission allows viewing/editing data in the [Reference books\Product types](#)^[173] interface. Note that the System product types (such as *International*, *SMS*, *DID* etc) cannot be edited and deleted from the web interface
- *Company region*: the permission allows viewing data in the [Reference books\Regions](#)^[174] interface. VPD restricted
- *Units*: the permission allows to viewing/editing data in the [Reference books\Units](#)^[176] interface

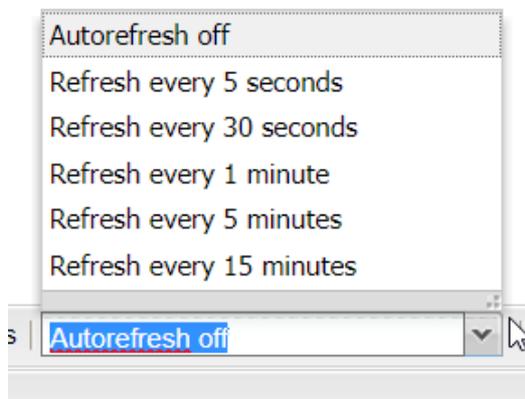
22.12 Reports

- Reports
 - Auto-refresh reports
 - Create and edit reports

Reports

The section gives permissions to view, launch and export reports in the [Reports](#)^[519] interface.

- *Auto-refresh reports*: if the permission is granted, the user will be able to set a period for [report autorefresh](#) (see figure below)



Reports autorefresh

- *Create and edit reports*: if the permission is granted, the user will be able to edit reports, create new ones and export the SQL code of reports

22.13 Show start page metrics

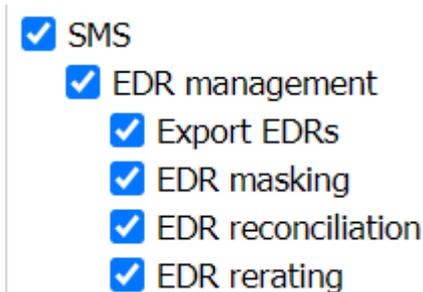
- *Show start page metrics*: the permission defines if graphs and the *Set of metrics* button are hidden on the *Start* page of the main web interface

22.14 View swap deals

The section allows viewing swap deals. *VPD restricted*.

- *Edit swap deals*: the permission allows editing swap deals. *VPD restricted*

22.15 EDR management



EDR management

The section opens access to the [SMS\EDR management](#)^[52b] interfaces.

- *Export EDRs*: the permission allows exporting EDRs in the [SMS\EDR management\EDR export tool](#)^[227] interface and from the [SMS\Analytics](#)^[213] interface. Note that the user with the granted permission will be allowed to select only those client/vendor products for task creation which it is allowed to manage or view based on permissions from the [View/edit permissions](#)^[51b] section
- *EDR masking*: the permission allows users to mask the destination address for a certain period. Note that the user with the granted permission will be able to check tasks if either *View and edit all data* or *View and edit all data (except System owner parent rates)* is granted as well
- *EDR reconciliation*: the permission allows comparing System and partner's EDRs in the [SMS\EDR management\EDR reconciliation](#)^[22b] interface. Note that the user with the granted

permission will be able to check tasks if either *View and edit all data* or *View and edit all data (except System owner parent rates)* is granted as well

- *EDR rerating*: the permission allows scheduling EDR rerating tasks. The user is allowed to view tasks and their details (the bottom grid) based on permissions from the [View/edit permissions](#)^[518] section. The user is allowed to rerate EDRs if at least one edit permission from that section is enabled. For example, if the permission *View all data* is granted, the user will be able to check all tasks with the details but will not be allowed to launch rerating tasks. If the permission *View and edit objects of own contract company* is granted, the user will be able to select those client/vendor products in the *Products* filter of the corresponding *Client/Vendor leg* filter which are available based on the granted permissions

22.16 SMS analytics

- SMS analytics
 - Telescopic mode
 - View SMS financial details
 - View SMS technical details
 - Show other managers' vendor names and channels
 - Show other managers' client names and channels
 - View all client data
 - View all vendor data

SMS analytics

The section allows to view the [SMS\Analytics](#)^[213] interface. If no child permission is granted under the section, the user will be able to check only the *Total* info without a possibility to drill down.

- *Telescopic mode*: the permission specifies if the *Telescopic view* button is shown in the *Analytics* page. Note that the permission has a priority over the System setting *SMS statistics telescopic mode*
- *View SMS financial details*: the permission allows checking the finance info as margin, revenue, vendor and HLR costs, rates (client/vendor), and average client/vendor/HLR rates. If the permission is not granted (and *View SMS technical details* is not granted either) the user will be able to check only the following info: *Attempts*, *Successful*, *Billable (C)*, *Billable (V)*, *Submitted*
- *View SMS technical details*: the permission allows checking the technical info such as *ASR*, *DLR* (total and successful), *Activated*, *Delivered*, *Reported*, *HLR cached/ported*, *Segments delivered*, *ADD*, *Segments delivered*, *Delivered within interval 1-5*, *Act. rate (T)*, *Act. rate (S)*
- *Show other managers' vendor names and channels*: the permission allows viewing vendor names and vendor channel names of other managers in the [SMS\Analytics](#)^[213] interface
- *Show other managers' client names and channels*: the permission allows viewing client names and client channel names of other managers in the [SMS\Analytics](#)^[213] interface
- *View all client data*: the permission allows viewing client data based on permissions given in the [View/edit permissions](#)^[518] section. For example, if *View and edit objects of own contract companies* is granted to the user, the user will be able to find traffic of another contract company, however, instead of client names the account manager name + carrier ID will be shown. If *Show other managers' client names and channels* is granted additionally, the user will be able to view the client names of other managers' accounts. If the permission *View all vendor data* is granted as well, the user will be able to check vendor-related layers

- *View all vendor data*: the permission allows viewing vendor data based on permissions given in the [View/edit permissions](#)^[518] section

22.17 SMS channel edit

- *SMS channel edit*: the permission allows editing SMS channels ([Carriers\SMS channels](#)^[120])

22.18 SMS POI edit

- *SMS POI edit*: the permission allows editing SMS POIs ([Carriers\SMS POI](#)^[135])

22.19 SMS rates

- SMS rate view
- SMS rate edit
- SMS rate export
- SMS rate plan creation
- SMS rate import
- Import client rates
- Import vendor rates

SMS rates

The section opens access to rate management interfaces ([SMS\Rates](#)^[238]). If no child permission is granted, the *Rates* menu is hidden.

- *SMS rate view*: the permission allows access to the [SMS\Rates\Rate editor](#)^[244] interface. *VPD restricted*
 - *SMS rate edit*: a parent permission for *Edit client/vendor rates* permissions which grants a possibility to manage rates through the [SMS\Rates\Rate editor](#)^[244] interface. Note that it is still allowed for user to change rates using SMS rate import based on View/edit permissions section even if the permission SMS rate edit is not given. For example, if the user is allowed to edit objects of managed accounts and SMS rate import permission is granted, it is possible to import rates to the products of managed accounts
- *SMS rate export*: the permission allows access to the [SMS\Rates\Rate export](#)^[251] interface. *VPD restricted*
- *SMS rate plan creation*: the permission allows access to the [SMS\Rates\Rate compilation](#)^[270] interface. To apply generated rates, a user must have the *SMS rate edit* permission. *VPD restricted*
- *SMS rate import*: the permission enables access to the [SMS\Rates\Rate import](#)^[258] interface. If the permission is granted, the [SMS\Rates\Auto rate import](#)^[239] interface is accessible as well. *VPD restricted*
 - *Import client rates*: the permission defines if a user can import client rates. If the permission is granted, the user will be allowed to restart and add tasks for the client direction (*Restart* and *Continue* buttons) as well as check tasks in the *Choice* and *Analysis* mode (*waiting* and *view* hyperlinks)
 - *Import vendor rates*: the permission defines if a user can import vendor rates. If the permission is granted, the user will be allowed to restart and add tasks for the vendor direction (*Restart* and *Continue* buttons) as well as check tasks in the *Choice* and *Analysis* mode (*waiting* and *view* hyperlinks)

22.20 e.212/e.164 reference book

- e.212/e.164 reference book
 - e.212/e.164 reference book edit
 - e.212/e.164 reference book export
 - e.212/e.164 reference book import

e.212/e.164 reference book

The section opens access to the e.212/e.164 reference book management interfaces ([SMS\Reference books](#)^[275]). If no child permission is granted, the user will be able to view data in the [e.212/e.164 reference book editor](#)^[280], view and modify (add, delete or change presets) records in the [SMS\Reference books\Billing status presets](#)^[280] interface, view and modify data in the [SMS\Reference books\Short code reference book editor](#)^[276] interface based on the [View/edit permissions](#)^[518] section. Note that if the user has only the *View all data* permission granted from that section, the user will be able to edit records in the [SMS\Reference books\Short code reference book editor](#)^[276] interface.

- *e.212/e.164 reference book edit*: the permission specifies if the user is allowed to edit the e.212/e.164 reference book. Note that if the user has only the *View all data* granted together with this permission, the user will be able to edit records in the interface
- *e.212/e.164 reference book export*: if the permission is given, the user will be able to export the e.212/e.164 reference book from both grids of the [SMS\Reference books\Short code reference book editor](#)^[276] interface
- *e.212/e.164 reference book import*: the permission specifies if the user can import the reference book through the [SMS\Reference books\Short code reference book import](#)^[282] interface

22.21 SMS routing

- SMS routing
 - Message templates
 - SMS routing features edit
 - SMS routing statistics edit
 - SMS routing rules view
 - SMS routing rules edit
 - SMS translation rules view
 - SMS translation rules edit

SMS routing

The section opens access to routing management interfaces ([SMS\Routing](#)^[289]) such as [Routing features](#)^[290], [Routing rules](#)^[293], [Routing statistics](#)^[313], and [Translation rules](#)^[328].

- *Message templates*: enables access to the [SMS\Routing\Message templates](#)^[289] interface.
- *SMS routing features edit*: if the permission is granted, the user can manage data in the [Routing features](#)^[290] interface. Even if the permission is disabled while the *SMS routing rules view/edit* permissions are granted, the user is allowed to view routing features in the [Routing rules](#)^[293] interface. Note that if the user has only the *View all data permission*, it is still possible to modify records in both tabs (*Classifier* and *Features*). *VPD restricted*

- *SMS routing statistics edit*: if the permission is granted, the user can manage data in the [Routing statistics](#) ^[313] interface. Note that if the user has only the view permissions, it is still possible to add/modify/delete records. *VPD restricted*
- *SMS routing rules view*: if the permission is granted, the user can view data in the [Routing rules](#) ^[293] interface. Note that product names unavailable to user (due to the [View/edit permissions](#) ^[518]) will be replaced with IDs (for the *Client products* list and vendor choices)
 - *SMS routing rules edit*: the permission allows users to edit routing rules including the *Replace product* option as well as edit tags ([Reference books\Tags](#) ^[160]) of the SMS type. To edit rules the user must have the *Edit client/vendor rates/routing for own accounts* correspondingly. The logic how the permissions apply is described in the [Edit rates\routing permissions](#) ^[515] section of the document. If the *SMS routing rules edit* is not granted, the user is not allowed to use the *Delete this product from all routing rules* button ([Carriers\Products](#) ^[103]) for SMS products. Note that the user can modify rules using the button even if the permission *SMS routing rules edit* is granted while only *View all data* is granted from the [View/edit permissions](#) ^[518] section
- *SMS translation rules view*: if the permission is granted, the user can view data in the [SMS\Routing\Translation rules](#) ^[328] interface (*Message parameters, Error and status codes, Code list* tabs). If a rule is created for client/vendor products which the user is not allowed to check (based on the [View/edit permissions](#) ^[518] section), the rule will be shown but the product names will be hidden
 - *SMS translation rules edit*: if the permission is granted, the user can edit data in the [SMS\Routing\Translation rules](#) ^[328] interface (*Message parameters, Error and status codes, Code list* tabs). Note that if the user has only the view permissions, it is still possible to modify records as well as modify restricted records (which contain unallowed products) if the user has limited editing permissions (for example, *View and edit objects of own contract companies*)

22.22 SMS simulation interface

- SMS simulation interface
- SMS simulation
- SMS test send

SMS simulation interface

The section opens access to the [SMS\Routing\Simulation](#) ^[314] interface.

- *SMS simulation*: the permission allows simulating message termination from the [SMS\Routing\Simulation](#) ^[314] interface (*Simulation* tab). Note that the *Product* and *SMS POI list* will contain only allowed products/POIs. To find other users' tasks it is necessary to have the *View all data/View and edit all data* permission
- *SMS test send*: the permission allows sending a message from the *Send SMS* tab ([SMS\Routing\Simulation](#) ^[314])

22.23 SMS tests management

- *SMS tests management*: if granted, the user can launch tasks in the [SMS\Test system](#) ^[336] interface. *VPD restricted*

22.24 SMS volume-based deal edit

- *SMS volume-based deal edit*: if granted, the user can manage data in the [SMS\Volume-based deals](#) [353] interface. If the user has only view permissions given in the [View/edit permissions](#) [518] section, it is still allowed to modify records. VPD restricted

22.25 Campaign Portal

- Campaign Portal
 - SMS packs
 - SMS packs management
 - SMS packs user subscriptions
 - Edit user subscriptions

Campaign Portal

The section opens access to the [Campaign Portal](#) [356] section of the interface. If no child permission is given, the tab is not shown in the *Start* menu.

- *SMS packs*: if the permission is granted, the user can view data in the [Campaign Portal\SMS pack](#) [356] interface. *VPD restricted*
 - *SMS packs management*: the permission allows users to edit data (add new packs, modify them, and delete) in both grids of the [Campaign Portal\SMS pack](#) [356] interface. Note that pack modification is restricted if the pack has subscribers (can be checked at [Campaign Portal\SMS pack user subscription](#) [358])
- *SMS pack user subscriptions*: if the permission is granted, the user can apply packages to accounts in [Campaign Portal\SMS pack user subscription](#) [356]. The user will be able to select packages based on the [View/edit permissions](#) [518] section. For example, if the user has the *View and edit objects of managed accounts* permission, the user can check subscriptions of managed accounts and apply an available package to its accounts (for example, the package that has been created for a specific contract company or carrier). Note that contract company names will be replaced by contract company IDs if the user is not allowed to view them (for example, if they are not the user's contract companies while the *View and edit objects of own contract companies* permission is given). *VPD restricted*
 - *Edit user subscriptions*: if the permission is granted, the user can close subscriptions in [Campaign Portal\SMS pack user subscription](#) [358]

22.26 Examples

Below are some examples illustrating combinations of user permissions that can be given to different departments. Note that permissions from the [View/edit permissions](#) [518] section must be granted depending on the requirements.

Permissions	System administrator	Finance department	Rates department	Routing department	Sales department	NOC
Accounts edit	+	+	-	-	+	-
Agreements edit	+	+	-	-	+	-
Products edit	+	-	-	+	-	-



Appendix 8. User permissions

Carriers	+	-	-	-	+	+
Edit rates\routing permissions	+	-	+	+	+	+
EDR management	+	-	-	-	-	+
Finance	+	+	-	-	-	
Reports	+	+	-	-	+	+
SMS analytics	+	-	-	-	+	+
SMS rates	+	-	+	-	+	-
SMS routing	+	-	-	+	+	+
SMS simulation	+	-	-	+	+	+
Trace analyzer	+	-	-	-	-	+

23 Appendix 9. REST API methods

This Appendix provides a description of methods available through REST API (Application Programming Interface of Representational State Transfer).

REST API is a principle for the organization of interaction between the application and server over the HTTP protocol. The main peculiarity of REST is that authorization parameters are sent to the server in each request.

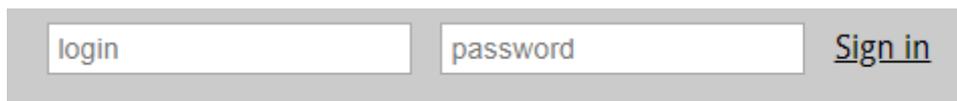
REST API allows users to get information based on predefined parameters (ID, name, etc). Additionally it allows the System owner to provide its partners with URLs to execute queries with pre-defined parameters so they can extract data without having access to the main web interface.

NOTE: To use REST API provide the Alaris support team with a domain name assigned to the web server IP address.

23.1 REST API authorization and main information

To call REST API methods, the user must be authorized. There are 2 types of authorization in the Alaris API - basic and bearer (token).

The basic type uses credentials of a user created in the main web interface ([AdministrationUsers](#)^[91])



Login and password fields

Once the *login* and *password* are inserted, the user must click *Sign in*. If a method is used for the first time, it is required to provide the credentials. Further calls of this or other methods will reuse this information.

The login and password are encoded in base64 and sent in the *Authorization* header of each request - internal login and logout happen every time when a request is processed, therefore this process is basically stateless.

The bearer authentication requires using the method **GET:auth**. Note that first it is necessary to fill in the credentials of a user already created in the main web interface.

After that it is possible to click the *Try it out* button - the *Response body* will contain a token as illustrated below.

Response Body

```
{
  "token": "eyJhbGciOiJIUzI1NiJ9.eyJyYXkiOiJyYXkiLCJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJyYXkiOiJyYXkiLCJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9"
}
```

Token

Authorization through Basic is possible using the cURL:

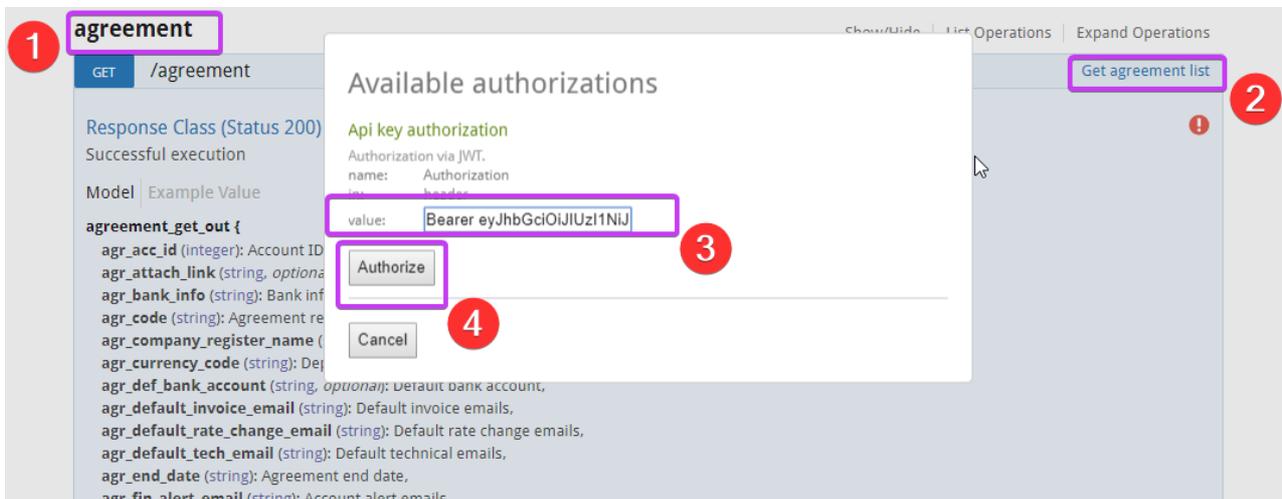
```
curl -u login:password 'https://test.api.com/rest/auth'[52]
```

```
curl -H 'Authorization: Basic <username:password encoded in base64>'
```

Once the token is received, it can be used in methods, for example:

```
curl -H 'Authorization: Bearer token' 'https://test.api.com/rest/527method'
```

The token should be copied and inserted when using any other method, for example:



Inserting a token

The format must be as follows *Bearer <token>*. The default token expiration time is 2 hours, a custom one (positive, decimal values are allowed) can be set in *lifetime* input parameter - the minimum is 0.000694 (a minute) and maximum is 365 (a year). Additional restriction is that the token is given for a specific IP, trying to use the same token from another host will result in an error.

The difference between these 2 types is that the bearer one is more secure. Almost all REST API methods can be launched using basic authorization except for **POST:send_sms**. Note that some methods (example is **GET:info**) do not require authorization.

23.2 Summary of REST API and permissions

Methods	Method description	Is VPD restricted	List of permissions
GET:carrier	Get list of carriers	+	-
POST:carrier	Create a new carrier	-	Carriers edit
PUT:carrier	Create a carrier	+	Carriers edit
DELETE:carrier	Delete a carrier	+	Carriers edit
GET:account	Get list of accounts	+	-
POST:account	Create a new account	-	-
PUT:account	Update an account	+	Accounts edit
DELETE:account	Delete an account	+	Accounts edit

GET:agreement	Get list of agreements	+	Carriers, View contact emails in agreements, View credit limits in agreements
POST:agreement	Create a new agreement	-	Agreements edit
PUT:agreement	Update an agreement	+	Agreements edit
DELETE:agreement	Delete an agreement	+	-
GET:product	Get list of products	+	Carriers
POST:product	Create a new product	-	Products edit
PUT:product	Update a product	+	Products edit
DELETE:product	Delete a product	+	Products edit
GET:sms_channel	Get list of SMS channels	+	Carriers
POST:sms_channel	Create a new SMS channel	-	SMS channel edit
PUT:sms_channel	Update an SMS channel	+	SMS channel edit
DELETE:sms_channel	Delete an SMS channel	+	SMS channel edit
GET:sms_poi	Get list of SMS POIs	+	Carriers
POST:sms_poi	Create a new SMS POI	+	SMS POI edit
PUT:sms_poi	Update an SMS POI	+	SMS POI edit
DELETE:sms_poi	Delete an SMS POI	+	SMS POI edit
GET:sms_rate	Get list of SMS rates	+	SMS rates tab
POST:sms_rate	Create a new SMS rate	+	SMS rate edit
POST:close_sms_rate	Close an SMS rate	+	SMS rate edit, Edit rates\routing permissions
GET:sms_rule	Get list of SMS rules	-	SMS routing rules view
POST:sms_rule	Create a new SMS rule	+	SMS routing rules edit, Edit rates\routing permissions

PUT:sms_rule	Update an SMS rule	+	SMS routing rules edit, Edit rates\routing permissions
DELETE:sms_rule	Delete an SMS rule	-	SMS routing rules edit
GET:sms_translation_rule	Get list of SMS translation rules	-	SMS translation rules view
POST:sms_translation_rule	Create a new translation rule	-	SMS translation rules edit
PUT:sms_translation_rule	Update a translation rule	-	SMS translation rules edit
DELETE:sms_translation_rule	Delete a translation rule	-	SMS translation rules edit
GET:invoice	Get list of invoices	+	
PUT:invoice	Update an invoice	+	Generate client invoice, Confirm client invoice, Register vendor invoice, Confirm vendor invoice
GET:payment	Get list of payments	+	-
POST:payment	Add a new payment	-	Register payments from client/to vendor, Confirm client/vendor payment
PUT:payment	Update a payment	-	Payments
DELETE:payment	Delete a payment	-	Payments
GET:sms_edr	Get EDRs	+	Show message content
GET:sms_edr_text	Get message content	-	-
GET:sms_usage_stats	Shows daily statistics (SMS daily/hourly cubes)	+	-
GET:sms_usage_summary	Shows summary of daily statistics (SMS daily/hourly cubes)	+	-
GET:sms_poi_ema_stats	Shows EMA statistics based on SMS POI+MCCMNC	-	-

GET:sms_ema_rule	Shows routing rule statistics	-	SMS routing statistics edit
-------------------------	-------------------------------	---	-----------------------------

Methods for the Campaign Portal return data available to a Campaign Portal user. For example, if a campaign portal user has the permission *View all data*, the user will still be able to access the data related to its partner only using **GET:edr** method.

23.3 REST methods

There are several possible ways to manage data using REST API by means of different HTTP methods:

- GET - to get records
- POST - to add new record(s)
- PUT - to modify existing record
- DELETE - to delete record

Some REST methods support all these types in different variations and others support only some of them. For example:

user (manage data of users):

user		Show/Hide | List Operations | Expand Operations
GET	/user	Get user list
POST	/user	Add new user
DELETE	/user/{id}	Delete specific
GET	/user/{id}	Get specific user
PUT	/user/{id}	Update specific user

Object 'user'

GET:user - get info of all users

POST:user - add a new user

DELETE:user{id} - delete a user with ID *{id}*

GET:user{id} - get info of a user with ID *{id}*

PUT:user{id} - change data of a user with ID *{id}*

and

user_password (to change user's password) - the only available method is **PUT** (to update the password for an already existing user):

user_password		Show/Hide | List Operations | Expand Operations
PUT	/user_password	Change user password

user_role Show/Hide | List Operations | Expand Operations

PUT: user_password method

The correct default date format is **YYYY.MM.DD HH24:MI:SS**. If the date is set as YYYY.MM.DD it is equal to YYYY.MM.DD 00:00:00. The correct format to specify hours, minutes and seconds is YYYY.MM.DD HH24:MI:SS (e.g., "start_date": "2018.01.01 01:00:33").

Methods marked with the **VPD restricted** flag rely on the *View/edit permissions* section ([Administration\Users\permissions](#)) to restrict access for certain companies or partners. For example, if the user has *View all data* granted only, using the method **DELETE:product** which is **VPD restricted** it will not be possible to delete a product - and a corresponding message will be shown (e.g., { "error_message": "No rows were really affected: object access is restricted or it has already been deleted" }). Another example: to control objects of managed accounts through VPD restricted methods, the user must have *View and edit objects of managed accounts* together with other permissions that are required to use the method.

23.4 Examples of using REST methods

Let's examine how to use these 4 method types for the object '[carrier](#)':

carrier		Show/Hide | List Operations | Expand Operations
GET	/carrier	Get carrier list
POST	/carrier	Create new carrier
DELETE	/carrier/{id}	Delete specific carrier
GET	/carrier/{id}	Get specific carrier
PUT	/carrier/{id}	Update specific carrier

Object 'carrier'

23.4.1 GET:carrier

The method will return a list of carriers once the user logs in to the API and clicks the *Try it out* button.

GET /carrier
Get carrier list

Response Class (Status 200) !
 Successful execution

Model | Example Value

```

carrier_get_out {
  address (string): Address,
  cc_id (integer): Contract company ID,
  comments (string, optional): Comments,
  country (string, optional): Carrier registration country,
  id (integer): Carrier ID,
  inbound_allowed (integer): Inbound traffic allowed (1 - yes, 0 - no),
  is_active (integer): Active flag (1 - active, 0 - not active),
  name (string): Carrier name,
  outbound_allowed (integer): Outbound traffic allowed (1 - yes, 0 - no),
  region_id (integer, optional): Region ID,
  test (integer): Test carrier flag (0 - general carrier, 1 - for testing purpose),
  trusted_customer (integer): Trusted customer (1 - yes, 0 - no)
}
    
```

Response Content Type

Parameters

Parameter	Value	Description	Parameter Type	Data Type
first_rec	<input type="text"/>	Pagination: first record	query	integer
orderby_clause	<input type="text" value="2"/>	Sort expression: list of column numbers separated by comma (1 - id, 2 - name, 3 - address, 4 - trusted_customer, 5 - inbound_allowed, 6 - outbound_allowed, 7 - cc_id, 8 - region_id, 9 - comments, 10 - is_active, 11 - test, 12 - country)	query	string
rec_count	<input type="text"/>	Pagination: maximum number of records	query	integer

Response Messages

HTTP Status Code	Reason	Response Model	Headers
400	Invalid input		
401	Authorization failed		

Try it out!

[Hide Response](#)

Try it out button

The response will contain JSON array, for example:

```

[
  {
    "id": 1,
    "name": "AlarisTest",
    "address": "88005553535",
    "trusted_customer": 1,
    "inbound_allowed": 1,
    
```

```
"outbound_allowed": 1,
"cc_id": 1,
"is_active": 1,
"test": 0
},
{
  "id": 2,
  "name": "Golden Telecom",
  "address": "Singapore 068589",
  "trusted_customer": 1,
  "inbound_allowed": 1,
  "outbound_allowed": 1,
  "cc_id": 1,
  "is_active": 1,
  "test": 0
},
.....
{
  "id": 10,
  "name": "Mobile Communications",
  "address": "Moscow, Russia",
  "trusted_customer": 1,
  "inbound_allowed": 1,
  "outbound_allowed": 1,
  "cc_id": 1,
  "is_active": 1,
  "test": 0
}}
```

VPD restricted.

cURL pattern will be as follows:

```
curl -X GET --header 'Accept: application/json' --header 'Authorization: Bearer <token>'
'http://<domain_name>/rest/<method>
```

cURLs of this specific example will be as follows:

```
curl -X GET -H 'Authorization: Basic username:password_in_base64' 'https://test.api.com/rest/carrier'
```

```
curl -X GET --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOiJIUzI1Ni' 'https://test.api.com/rest/carrier'
```

23.4.2 POST:carrier

The method will create a new carrier once the user authorizes to the API, inserts the body and clicks the *Try it out* button. An example of the body can be reviewed either by the *Model* link or *Example value*.

POST /carrier
Create new carrier

Response Class (Status 200) !

Successful execution

Model | Example Value

```
carrier_post_out {
  id (integer): Carrier ID
}
```

Response Content Type:

Parameters

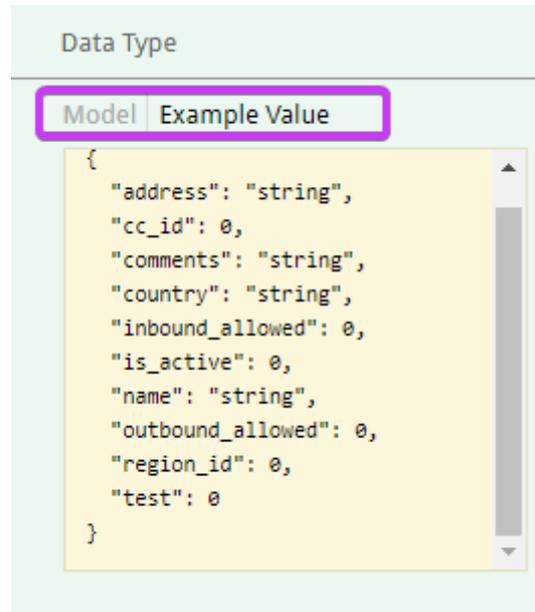
Parameter	Value	Description	Parameter Type	Data Type
body	<div style="border: 1px solid #ccc; height: 60px; width: 100%;"></div>		body	<div style="border: 2px solid purple; padding: 2px;"> Model | Example Value </div> <pre>carrier_post_in { address (string, optional): Address, cc_id (integer, optional): Contract company ID, comments (string, optional): Comments, country (string, optional): Carrier registration country, inbound_allowed (integer, optional): Inbound traffic allowed (1 - yes, 0 - no), is_active (integer, optional): Active flag (1 - active, 0 - not active), name (string): Carrier name, outbound_allowed (integer, optional): Outbound traffic allowed (1 - yes, 0 - no), region_id (integer, optional): Region ID, test (integer, optional): Test carrier flag (0 - general carrier, 1 - for testing purpose) }</pre>

Parameter content type:

Response Messages

HTTP Status Code	Reason	Response Model	Headers
400	Invalid input		
401	Authorization failed		

Model link



Example value

To insert the template of the body click the *Example value* body.

```
{
  "address": "xx",
  "cc_id": 1,
  "comments": "-",
  "country": "Russia",
  "inbound_allowed": 1,
  "is_active": 1,
  "name": "Client",
  "outbound_allowed": 0,
  "test": 0
}
```

An active non-test carrier with name *Client* and client direction will be created. In this example the *region* parameter is missing - so it will be specified as *empty* in the main web interface.

The only obligatory field is *name* - by default the *Inbound/Outbound traffic allowed* options are enabled (if not specified in the body), the carrier is marked active and assigned to the contract company marked *Default for self-registered partners* in *Reference books\Contract companies*.

The successful response will return the ID of the created entity:

```
{ "id": "7102" }
```

If it is impossible to add a carrier due to a non-unique name, response code 500 will be returned and the response body will be as:

```
{ "error_message": "Cannot create or modify carrier. Carrier with such name already exists."}
```

Response code 400 will be given if one of the obligatory parameters is missing:

```
{ "error_message": "Parameter name required"}
```

Response code 401 means *Authorization failed*.

To use the method, the permission *Carriers edit* must be granted.

The cURL pattern will be as follows:

```
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' --header 'Authorization: Bearer <token>' -d '{body}' 'http://<domain_name>/rest/<method>'
```

cURLs of this specific example will be as follows:

```
curl -X POST -H 'Authorization: Basic username:password_in_base64' -d '{
  "address": "xx",
  "cc_id": 1,
  "comments": "-",
  "country": "Russia",
  "inbound_allowed": 1,
  "is_active": 1,
  "name": "Client",
  "outbound_allowed": 0,
  "test": 0
}' 'https://test.api.com/rest/carrier'
```

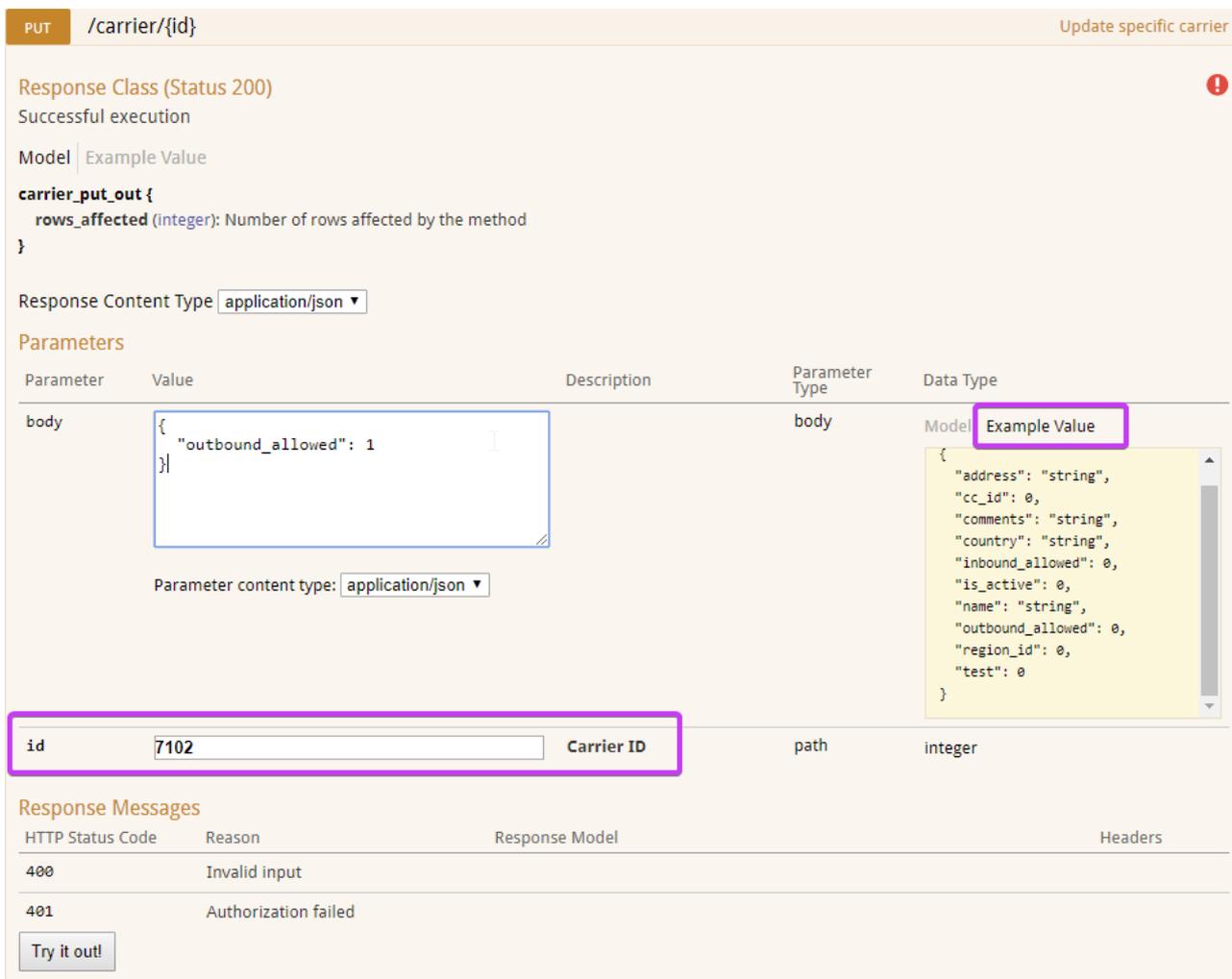
```
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOiJI' -d '{
```

```
  "address": "xx",
  "cc_id": 1,
  "comments": "-",
  "country": "Russia",
  "inbound_allowed": 1,
```

```
"is_active": 1,
"name": "Client",
"outbound_allowed": 0,
"test": 0
}' https://test.api.com/rest/carrier'
```

23.4.3 PUT:carrier

The method will update parameters of the existing carrier based on the inserted ID. Let's allow outgoing traffic for carrier ID 7102:



PUT /carrier/{id} Update specific carrier

Response Class (Status 200)
Successful execution

Model | Example Value

```
carrier_put_out {
  rows_affected (integer): Number of rows affected by the method
}
```

Response Content Type: application/json

Parameters

Parameter	Value	Description	Parameter Type	Data Type
body	<pre>{ "outbound_allowed": 1 }</pre>		body	Model Example Value
id	<input type="text" value="7102"/>	Carrier ID	path	integer

Parameter content type: application/json

```
{
  "address": "string",
  "cc_id": 0,
  "comments": "string",
  "country": "string",
  "inbound_allowed": 0,
  "is_active": 0,
  "name": "string",
  "outbound_allowed": 0,
  "region_id": 0,
  "test": 0
}
```

Response Messages

HTTP Status Code	Reason	Response Model	Headers
400	Invalid input		
401	Authorization failed		

Put:carrier

Response body will contain a record:

```
{ "rows_affected": "1"}
```

which means that parameters of one carrier has been updated. Note that if some parameters are not sent through the method, they will remain the same.

To use the method, the permission *Carriers edit* must be granted. **VPD restricted.**

The cURL pattern will be as follows:

```
curl -X PUT --header 'Content-Type: application/json' --header 'Accept: application/json' --header 'Authorization: Bearer <token>' -d '{body}' 'http://<domain_name>/rest/<method>'
```

The cURLs of this specific example will be as follows:

```
curl -X PUT -H 'Authorization: Basic username:password_in_base64' -d '{
```

```
  "outbound_allowed": 1
```

```
}' 'https://test.api.com/rest/carrier/7102'
```

```
curl -X PUT --header 'Content-Type: application/json' --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOi' -d '{
```

```
  "outbound_allowed": 1
```

```
}' 'https://test.api.com/rest/carrier/7102'
```

23.4.4 DELETE:carrier

The method will delete the existing carrier based on the inserted ID:

DELETE
/carrier/{id}
Delete specific carrier

Response Class (Status 200) !

Successful execution

Model Example Value

```
carrier_delete_out {
  rows_affected (integer): Number of rows affected by the method
}
```

Response Content Type application/json

Parameters

Parameter	Value	Description	Parameter Type	Data Type
cascade	<input type="text"/>	Cascade delete (1 - yes, [0] - no)	query	integer
id	<input type="text" value="7104"/>	Carrier ID	path	integer

Response Messages

HTTP Status Code	Reason	Response Model	Headers
400	Invalid input		
401	Authorization failed		

Try it out!

DELETE:carrier

Response body will contain the record:

```
{ "rows_affected": "1"}
```

which means that one carrier has been deleted. It is only possible to delete one entity in a row.

To use the method, the permission *Carriers edit* must be granted. **VPD restricted.**

The cURL pattern will be as follows:

```
curl -X DELETE --header 'Accept: application/json' --header 'Authorization: Bearer <token>'
'http://<domain_name>/rest/<method>
```

cURLs of this specific example will be as follows:

```
curl -X DELETE -H 'Authorization: Basic username:password_in_base64'
'https://test.api.com/rest/carrier/7104'
```

```
curl -X DELETE --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOiJIUzI1NiJ'
'https://test.api.com/rest/carrier/7104'
```

23.5 Alaris REST methods

23.5.1 Main objects

Creation of a chain of main objects in the System is possible through the methods listed below.

23.5.1.1 carrier

The description is available in the [Examples of using REST methods](#)^[532] section.

23.5.1.2 account

Fetching the list of accounts is possible through the **GET:account** method. **VPD restricted**.

The response body is as follows:

```
{
  "id": 10030,
  "car_id": 1,
  "balance_updated": "2019.08.16 13:17:31",
  "manager_user_id": 10000,
  "currency_code": "USD",
  "balance": -241.75,
  "descr": "10030",
  "in_credit_limit": 9999999999,
  "acc_send_balance_alerts": 0
},
....
{
  "id": 10031,
  "car_id": 1,
```

```
"balance_updated": "2017.03.31 08:45:13",  
"manager_user_id": 10000,  
"currency_code": "USD",  
"balance": 0,  
"in_credit_limit": 99999999999,  
"acc_bal_threshold3": 3,  
"acc_send_balance_alerts": 0  
}]
```

Additional filters such as *car_id*, *descr*, *direction* can be set:

car_id: carrier ID which the account(s) belong(s) to. Note that if a request is launched under the user of a non-System owner carrier, the filter is disregarded;

descr: Description field from Carriers\Accounts tab;

direction: 0 - client, 1 - vendor.

cURL example is:

```
curl -X GET --header 'Accept: application/json' 'https://test.api.com/rest/account?car_id=1'
```

Method **POST:account** is intended for account creation and does not require any user permission to be granted. The obligatory parameter is *currency_code* - note it must be specified as an existing currency (*Reference books\Currency exchange rate*), the list can be found using the method **GET:currency**. If no *car_id* is specified, the account is created under the System owner carrier. By default the account is created under the user's carrier with enabled *Send balance alerts*. The body can be as follows:

```
{  
  "acc_bal_threshold1": 1000,  
  "acc_bal_threshold2": 500,  
  "acc_bal_threshold3": 0,  
  "acc_bal_threshold4": 0,  
  "acc_bal_threshold5": 0,  
  "acc_cr_threshold1": 90,  
  "acc_cr_threshold2": 0,  
  "acc_cr_threshold3": 0,  
  "acc_cr_threshold4": 0,
```

```
"acc_cr_threshold5": 0,
"acc_send_balance_alerts": 0,
"car_id": 7432,
"create_def_dst_agreement": 0,
"create_def_src_agreement": 0,
"currency_code": "EUR",
"descr": "test"
}
```

where

acc_bal_threshold1 - acc_bal_threshold5: the account balance thresholds, in the account's currency. Just one threshold may be specified but it must be the first one, not the last or one in the middle.

acc_cr_threshold1 - acc_cr_threshold5: the account credit thresholds (relevant for postpaid carriers), in %. Just one threshold may be specified but it must be the first one, not the last or one in the middle.

acc_send_balance_alerts: if set to 0, *Send balance alerts* is disabled; if set to 1 - enabled.

car_id: carrier ID to assign account to. Only System owner's users are allowed to specify the parameter, the following message will be shown to non-System owner's users:

```
{ "error_message": "Insufficient privilege for carrier ID: 7432"};
```

create_def_dst_agreement/create_def_src_agreement: if both set to 0, the relevant account agreement is not created; if one of the parameters is set to 1 - the relevant agreement is created with enabled outgoing/incoming direction correspondingly.

cURL example is:

```
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' --header
'Authorization: Bearer eyJhbGciOiJIUzI1NiJ9.eyJjYjYX' -d '{
```

```
"currency_code": "EUR"
```

```
} 'https://test.api.com/rest/account'
```

Method **PUT:account** is intended for update of an existing account. The following parameters can be updated:

```
{
"acc_bal_threshold1": 1000,
"acc_bal_threshold2": 900,
"acc_bal_threshold3": 0,
"acc_bal_threshold4": 0,
"acc_bal_threshold5": 0,
```

```

"acc_cr_threshold1": 50,
"acc_cr_threshold2": 60,
"acc_cr_threshold3": 70,
"acc_cr_threshold4": 80,
"acc_cr_threshold5": 100,
"acc_send_balance_alerts": 1,
"descr": "test"
}

```

acc_send_balance_alerts: if set to 0, *Send balance alerts* is disabled; if set to 1 - enabled.

Accounts edit permission should be granted. **VPD restricted.**

cURL example is:

```

curl -X PUT --header 'Content-Type: application/json' --header 'Accept: application/json' -d '{
  "acc_bal_threshold1": 90,
  "acc_cr_threshold5": 10,
  "acc_send_balance_alerts": 0
}' 'https://test.api.com/rest/account/15081'

```

Removing an account is possible by means of the **DELETE:account** method - the account ID must be specified as a required parameter. If the user either is not allowed to edit any objects or does not have the permission *Accounts edit* granted, or there is no account with the inserted ID, the message will be shown:

```

{ "error_message": "No rows were really affected: object access is restricted or it has already been deleted"}

```

If the account has product(s) assigned to it, the warning will be shown:

```

{ "error_message": "Cannot delete account, as there is a product (test_kate_clproduct) in the database that depends on it"}

```

To delete all related entities, the parameter *cascade* must be set to 1. Important note: for cascade deletion, the user must have the *System owner. NO restriction* permission otherwise the message will be given:

```

{ "error_message": "No permission to complete the action. System Owner permissions required"}

```

The successful removal of the account will be reported as follows:

```

{ "rows_affected": "1"}

```

VPD restricted.

cURL example is:

```
curl -X DELETE --header 'Accept: application/json' 'https://test.api.com/rest/account/2?cascade=1'540
```

23.5.1.3 agreement

Getting of list of accounts is possible via **GET:agreement** method. **VPD restricted.**

Note that *Carriers* permission must be granted - and in case the user doesn't have the permission *View contact emails in agreements* granted, the fields *Default invoice emails*, *Default rate change emails*, *Default technical emails*, *Account alert emails*, *In default dispute emails*, *Out default dispute emails* will be hidden in the response. If the *View credit limits in agreements* permission is not specified, the user will not be able to view *In credit/Out credit* information:

```
[
  {
    "agr_id": 10114,
    "agr_code": "12344",
    "agr_acc_id": 10015,
    "agr_incoming": 1,
    "agr_outgoing": 1,
    "agr_start_date": "2015.12.07 00:00:00",
    "agr_end_date": "2100.01.01 00:00:00",
    "agr_bank_info": "Bank Name:\nBranch:\nAccount Number:\nABA:\nSWIFT:\nAddress:",
    "agr_company_register_name": "123",
    "agr_currency_code": "EUR",
    "agr_default_invoice_email": "**** hidden ****",
    "agr_default_rate_change_email": "**** hidden ****",
    "agr_default_tech_email": "**** hidden ****",
    "agr_fin_alert_email": "**** hidden ****",
    "agr_in_billing_period": 3,
    "agr_in_rate_add_period": 0,
    "agr_in_rate_close_period": 7,
    "agr_in_rate_decrease_period": 0,
    "agr_in_rate_increase_period": 7,
    "agr_in_rounding_digits": 15,
    "agr_in_tax_scheme_id": 1,
```

```

"agr_in_timezone_name": "Europe/Moscow",
"agr_out_billing_period": 3,
"agr_out_rate_add_period": 0,
"agr_out_rate_close_period": 7,
"agr_out_rate_decrease_period": 0,
"agr_out_rate_increase_period": 7,
"agr_out_rounding_digits": 15,
"agr_out_tax_scheme_id": 1,
"agr_out_timezone_name": "Europe/Moscow",
"agr_in_dispute_email": "**** hidden ****",
"agr_out_dispute_email": "**** hidden ****",
"include_in_notifications": 1
}
]

```

where

agr_incoming/agr_outgoing: 0 - direction is disabled, 1 - enabled;

agr_in_billing_period/agr_out_billing_period: 1 - daily; 3 - every 3 days; 4 - twice a week; 7 - weekly; 8 - weekly (non-calendar); 15 - twice a month; 30 - monthly; 60 - every 2 months; 90 - every 3 months; 120 - every 4 months;

agr_inv_deliv_option: invoice delivery option, null - system default, 0 - do not send, 1 - attachment, 2 - link, 3 - separate emails, 4 - attachment link;

agr_in_dur_rounding_func/agr_out_dur_rounding_func: rounding function (client/vendor leg correspondingly), 0 - floor, 1- round, 2 - ceil (voice-related parameters, not applicable to Alaris SMS Platform);

agr_in_rounding_func/agr_out_rounding_func: CDR cost rounding function for client/vendor correspondingly, 0 - floor, 1- round, 2 - ceil (voice-related parameters, not applicable to Alaris SMS Platform);

agr_in_tax_scheme_id/agr_out_tax_scheme_id: 1 - Tax included; 2 - Add tax % to estimated amount; 3 - Document only tax inclusion;

include_in_notifications: 0 - *Include in service notifications* option is enabled, 1 - *Include in service notifications* option is disabled.

If a parameter is missing from the output, it is not specified in the agreement.

To fetch a list of agreements with the enabled *Incoming/Outgoing* flag, the corresponding filter can be used. *effective_at* can be specified in the default date format to obtain agreements valid on a specific date.

cURL example is:

```
curl -X GET --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOiJIUzI1NiJ9.eyJ1b2RhdGEiOiJ1b2RhdGEiLCJ0eXBlIjoiYXV0bnVudCJ9.eyJ1b2RhdGEiOiJ1b2RhdGEiLCJ0eXBlIjoiYXV0bnVudCJ9.eyJ1b2RhdGEiOiJ1b2RhdGEiLCJ0eXBlIjoiYXV0bnVudCJ9'
'https://test.api.com/rest/agreement'
```

Adding a new agreement is possible by using the method **POST:agreement** - the *Agreements edit* permission must be granted. The obligatory parameters are *agr_acc_id*, *agr_code*, *agr_company_register_name*, *start_date*, *end_date*, *incoming_allowed*, *outgoing_allowed*. In case *incoming_allowed* and/or *outgoing_allowed* are set to 1, *agr_in_billing_period*/*agr_out_billing_period* should be specified respectively:

```
{
  "agr_acc_id": 10015,
  "agr_code": test,
  "agr_company_register_name": Test,
  "start_date": "2013.01.01 03:00",
  "end_date": "2013.01.01 04:00",
  "incoming_allowed": 0,
  "outgoing_allowed": 1,
  "agr_out_billing_period": 10
}
```

No data found error will be shown if there is no account with *acc_id*, Incorrect dates error - if *start_date* is set greater than *end_date* or incorrect date format is set in the parameters.

The correct *agr_in_timezone_name*/*agr_out_timezone_name* can be found through **GET:timezone_list** method.

Trying to add a new agreement that overlaps with an existing one (i.e. trying to add an incoming agreement for the period from 2020.01.01 to 2100.01.01 for the account that already has an incoming agreement active from 2019.01.01) will result in an error:

```
{ "error_message": "Cannot create or modify agreement. There is already another agreement for the selected carrier with the same traffic direction in the database." }
```

If *agr_in_billing_period*/*agr_out_billing_period* are specified incorrectly, the following error will be given:

```
{ "error_message": "ORA-02291: integrity constraint (INVOICE.BAS_AGR_OUT_BILL_PERIOD_FK) violated - parent key not found" }
```

cURL example is:

```
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOiJIUzI1NiJ9.eyJ1b2RhdGEiOiJ1b2RhdGEiLCJ0eXBlIjoiYXV0bnVudCJ9.eyJ1b2RhdGEiOiJ1b2RhdGEiLCJ0eXBlIjoiYXV0bnVudCJ9.eyJ1b2RhdGEiOiJ1b2RhdGEiLCJ0eXBlIjoiYXV0bnVudCJ9' -d '{
```

```
  "agr_acc_id": 10015,
```

```

"agr_code": test,
"agr_company_register_name": Test,
"start_date": "2013.01.01 03:00",
"end_date": "2013.01.01 04:00",
"incoming_allowed": 0,
"outgoing_allowed": 1,
"agr_out_billing_period": 10
}' https://test.api.com/rest/agreement/5441'

```

To update parameters of an existing agreement, the **PUT:agreement** method should be used. The permission *Agreements edit* must be granted. To edit the *agr_in_credit/agr_out_credit* permission, *Edit credit limits in agreements* must be given as well. **VPD restricted.**

The mandatory parameter is the agreement ID - *no data found* will be returned if agreement with such ID does not exist or the user does not have enough permissions to change the data.

cURL example is:

```

curl -X PUT --header 'Content-Type: application/json' --header 'Accept: application/json' --header
'Authorization: Bearer eyJhbGciOiJIUzI1Ni' -d '{"incoming_allowed": 1 }'
'https://test.api.com/rest/agreement/1006742'

```

Removal of an agreement is possible through the **DELETE:agreement** method - the obligatory parameter is the agreement ID. **VPD restricted.**

The successful removal will be shown as follows:

```
{ "rows_affected": "1" }
```

If a non-existent ID is set, no records will be deleted.

cURL example is:

```

curl -X DELETE --header 'Accept: application/json' --header 'Authorization: Bearer
eyJhbGciOiJIUzI1NiJ9.eyJjYXJyaWVz' 'https://test.api.com/rest/agreement/1006720'

```

23.5.1.4 balance

Fetching the list of accounts balances is possible through the **GET:balance** method. **VPD restricted.**

The response body is similar to the **GET:account** method (but does not return excessive info such as balance thresholds etc) and is as follows:

```

[ {
  "id": 10018,
  "car_id": 735,

```

```

    "balance_updated": "2019.07.03 15:27:19",
    "currency_code": "EUR",
    "balance": -801714.822021978,
    "descr": "Bla, blla d"
  },
  ....
  {
    "id": 10038,
    "car_id": 435,
    "balance_updated": "2000.01.01 01:25:16",
    "currency_code": "RUB",
    "balance": -388.65032,
    "descr": "test!"
  },]

```

Additional filters such as *car_id*, *descr*, *direction* can be set:

car_id: carrier ID to which the account(s) belong(s). Note that if a request is launched under the user of a non-System owner carrier, the filter is disregarded;

descr: Description field from *Carriers\Accounts* tab;

direction: 0 - client, 1 - vendor.

cURL example is:

```
curl -X GET --header 'Accept: application/json' 'https://test.api.com/rest/balance?direction=1'
```

To receive the balance of a specific account ID, use the **GET:balance{id}** method which is **VPD restricted** as well.

cURL example is:

```
curl -X GET --header 'Accept: application/json' 'https://test.api.com/rest/balance/10983'
```

23.5.1.5 product

Method **GET:product** returns the list of available products. The *Carriers* permission must be granted to get the list. **VPD restricted**.

Additional filters - such as *car_id*, *acc_id*, *direction* (0 - client, 1 - vendor), *notes* (case-sensitive, one value can be set) and *with_sms_rates* (0 - show all products, 1 - show products only with rates active at the moment) can be set. The output will be as follows:

```
[ {
  "id": 15956,
```

```

"car_id": 435,
"acc_id": 10033,
"descr": "SMS retail",
"direction": 0,
"type": 3,
"check_jurisdiction": 0,
"dip_for_lrn": 0,
"billable": 1,
"notes": "AC_product_notes",
"invoice_group_index": 0,
"ignore_stats": 0,
"block_for_lrn_calls": 0,
"ten_digit_calling_as_us": 1,
"check_lata": 1,
"reverse_charge": 0,
"check_ani_tags": 0,
"bill_delivered_only": 0,
"billing_mode": 4,
"is_active": 1,
"hlr_prefix_list": "1",
"exempt_from_held_duration": 0,
"use_sender_mccmnc_rates": 1,
"im_channel_id": 7
} ]

```

where *type*: product type (1 - International, 2 - US domestic, 3 - SMS, 4 - Unsorted, 5 - Balance correction, 6 - DID, 7 - HLR, 8 - DID/TFN fees, 9 - SMS pack, 10 - IM);

check_jurisdiction: applicable for products of *US domestic* type (0 - *Check jurisdiction* checkbox is disabled; 1 - enabled) - voice-related parameter, not applicable to Alaris SMS Platform;

dip_for_lrn: applicable for products of *US domestic* type (0 - *Dip for LRN* checkbox is disabled; 1 - enabled) and *SMS* type (0 - *Dip HLR* checkbox is disabled; 1 - enabled);

rates_based_on: applicable for products of *International* type (1 - Dial codes; 4 - Destination; 5 - Destination (with indices) and *International* type (2 - LATA + OCN; 3 - State + OCN) - voice-related parameter, not applicable to Alaris SMS Platform;

ignore_stats: applicable for products of *International* type and *US domestic* - client direction (0 - *Don't consider in vendor stats calculation* checkbox is disabled; 1 - enabled) - voice-related parameter, not applicable to Alaris SMS Platform;

block_for_lrn_calls: applicable for products of *US domestic* type - vendor direction (0 - *Block for no-LRN calls* checkbox is disabled; 1 - enabled) - voice-related parameter, not applicable to Alaris SMS Platform;

ten_digit_calling_as_us: applicable for products of *US domestic* type (0 - *Treat 10-digit A-number as US* checkbox is disabled; 1 - enabled) - voice-related parameter, not applicable to Alaris SMS Platform;

check_lata: applicable for products of *US domestic* type (0 - *Use LATA-based rates* checkbox is disabled; 1 - enabled) - voice-related parameter, not applicable to Alaris SMS Platform;

reverse_charge: applicable for products of *International* type (0 - *Reverse charge* checkbox is disabled; 1 - enabled) - voice-related parameter, not applicable to Alaris SMS Platform;

check_ani_tags: applicable for products of *International* type (0 - *Check ANI tags* checkbox is disabled; 1 - enabled) - voice-related parameter, not applicable to Alaris SMS Platform;

bill_delivered_only: billing preset ID (product billing mode), applicable for products of *SMS* type (0 - Bill by submitted; 1 - Bill by delivered; 2 - Bill by attempts; 3 - Bill by reported) - SMS-related parameter, not applicable to the Voice system (Alaris inVoice);

billing_mode: product billing mode, applicable for products of *SMS* type, client direction (1 - Bill by messages, exclude vendors with segment billing; 2 - Bill by messages, include vendors with segment billing; 3 - Bill by segments, calculate routing rate by message; 4 - Bill and calculate routing rate by segments; 5 - Bill by messages/segments depending on vendor mode) and vendor direction (6 - Bill by messages; 7 - Bill by segments) - SMS-related parameter, not applicable to the Voice system (Alaris inVoice);

hlr_prefix_list: shown if product type is *SMS* and *HLR prefixes* is set in the System - SMS-related parameter, not applicable to the Voice system (Alaris inVoice);

exempt_from_held_duration: applicable for products of *US domestic* type - client direction (0 - *Exempt from held duration* checkbox is disabled; 1 - enabled) - voice-related parameter, not applicable to Alaris SMS Platform.

im_channel_id: applicable if the product type is IM The list of IM channels can be found using *GET:im_channel* method.

use_sender_mccmnc_rates: if the *Use sender MCCMNC based rates* checkbox is selected for the product. 0 - deselected, 1 - selected;

cURL example is:

```
curl -X GET --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOiJIUzI1Ni'  
'https://test.api.com/rest/product?notes=mitto'548
```

The same can be achieved for a specific product ID using *GET:product{id}* method where the obligatory parameter is the product ID.

The method **POST:product** is intended for adding a new product - the permission *Products edit* must be given to the user. The obligatory parameters are *acc_id* (existing account ID - if it doesn't, an error will be given), *descr*, *direction* (either 0 or 1, otherwise an error will be given), *is_active* (either 0 or 1, otherwise an error will be given), *type*.

Example of the body can be as follows:

```
{  
  "acc_id": 10942,  
  "direction": 1,  
  "type": 3,  
  "is_active": 0,  
  "descr": "test"  
}
```

The successful response contains the ID of the created product:

```
{ "id": "22549" }
```

Additional parameters can be set while launching the method - most of them are self-explanatory and have restrictions. For example, if a text value is inserted to a field where a boolean value is expected, an error will be given.

hlr_prefix_list: list of space-separated prefixes, e.g.: "1 2 3" - SMS-related parameter, not applicable to the Voice part of the System (Alaris inVoice);

def_indeterminate_price: can be set as

- 1 - intrastate/intraLATA (SL)
- 2 - intrastate (S); intrastate/interLATA (SLL) - if *Use LATA-based rates* is enabled
- 3 - interstate/intraLATA (SSL)
- 4 - interstate (SS); interstate/interLATA (SSLL) - if *Use LATA-based rates* is enabled
- 5 - indeterminate (IND) - voice-related parameter, not applicable to Alaris SMS Platform;

parent_product_id - parent product ID. Note that the parent product must be created under an account of the same currency of the System owner carrier and be both of the same type and direction;

sibling_product_id: product set in the *Bill US traffic via separate product* drop-down list. Note that the sibling product ID must belong to the same account and be if of the same direction (voice-related parameter, not applicable to Alaris SMS Platform).

cURL example is:

```
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOiJIUzI1I' -d '{
```

```
"acc_id": 10942,
```

```
"direction": 1,
```

```
"type": 3,
```

```
"is_active": 0,
```

```
"descr": "test"
```

```
}' 'https://test.api.com/rest/product'
```

The method **PUT:product** will update an existing product - its ID must be set as the obligatory parameter. The permission *Products edit* must be granted to use the method. **VPD restricted**.

If the change was applied, the result will be shown:

```
{ "rows_affected": "1" }
```

The list of parameters that can be changed using the method is mentioned in the [Model/Example](#) ⁵⁴⁸ sections. The restriction for the values are the same as in the **POST:product** method.

cURL example is:

```
curl -X PUT --header 'Content-Type: application/json' --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOiJIUzI1NiJ9' -d '{
```

```
"bill_delivered_only": 2
```

```
}' 'https://test.api.com/rest/product/22595' 548
```

To remove a product the method **DELETE:product** can be used - the permission *Products edit* must be granted. **VPD restricted**.

If a product is used in routing rules, the following error will be given:

```
{"error_message": "Cannot delete this object as it is used in some routing rules: sms: 11863,12913,13874"}
```

If there are either active or non-active rates in a product, the message will be shown:

```
{"error_message": "Cannot delete product, as there are rates in the database (7908) that depend on it"}
```

To delete a product with dependencies (rates, POIs) the permission *Delete products with dependencies* must be granted - and the filter *cascade* must be set to 1.

The successful response will be as follows:

```
{ "rows_affected": "1" }
```

cURL example is:

```
curl -X DELETE --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOiJIUzI1NiJ9.'  
'https://test.api.com/rest/product/17755?cascade=1'[548]
```

23.5.1.6 sms_channel

The **GET:sms_channel** method returns the list of SMS channels available to the user if the *Carriers* permission is granted - otherwise, the response will be empty. **VPD restricted.**

The response body will contain the following parameters:

```
{  
  "id": 18955,  
  "car_id": 3165,  
  "buffer_client": 13,  
  "direction": 2,  
  "enabled": 1,  
  "guid": "test_v",  
  "ip": "1.1.1.1",  
  "name": "test_v",  
  "opt_fields_for_receipt": 0,  
  "password": "uniquepass",  
  "rx_enabled": 1,  
  "ssl_type": -1,  
  "submit_attempts": 0,  
  "submit_interval": 0,  
  "systemid": "uniquelogin",  
  "systemtype": "22",  
  "tx_enabled": 1,  
  "port": 20,  
  "allowed_connects": 1,  
  "buffer_send": 13,  
  "buffer_vendor": 13,  
  "lim_speed_receive": 13,  
  "lim_speed_send": 13,  
  "local_addr": "127.0.0.1",  
  "log_level": 0,  
  "submit_retry_interval": 0.0769,  
}
```

```
"data_coding_translation": 1,  
"allowed_data_coding_list": "1,2,3,4,5,6,7,8,9,10,13,14",  
"send_bind_to_client": 0,  
"fast_response": 0,  
"target_data_coding": 1,  
"default_data_coding": 1,  
"reject_too_long_msg": 0,  
"repush_delivery_reports": 0,  
"channel_status": "bound,offline"  
"send_text_in_payload": 0  
}]
```

where

buffer_client: Client overflow buffer size;

direction: 0 - TX, 1 - RX, 2 - TR, 3 - Auto;

enabled: 0 - disabled, 1 - enabled;

opt_fields_for_receipt: is *Use optional field for receipt* enabled, applicable for *Auto* and *TX* channels only (0 - disabled, 1 - enabled);

rx_enabled/tx_enabled: is *RX/TX* mode enabled correspondingly (0 - disabled, 1 - enabled). For both *Auto* and *TR* modes, the parameters are set to 1;

submit_attempts: No. of resends, applicable for *TX* and *TR* channels;

submit_interval: Resend interval, applicable for *TX* and *TR* channels;

allowed_connects: Number of connections - if set to 0, considered as 1. Applicable for vendor channels only;

buffer_send: Vendor window size;

buffer_vendor: Vendor overflow buffer size;

lim_speed_receive: Client capacity (sms/sec);

lim_speed_send: Vendor capacity (sms/sec);

local_addr: Local address, applicable for *TX*, *RX* and *TR* channels. If the response doesn't contain *local_addr* parameter, it is set to *Use switch default setting*.

submit_retry_interval: Submit interval (applicable for vendors);

send_bind_to_client - is *Send bind to client side* is enabled, applicable for *TX* and *TR* channels only (0 - disabled, 1 - enabled);

fast_response: is *Send submit_sm_resp before routing* enabled, applicable for client channels only (0 - disabled, 1 - enabled);

data_coding_translation: Transcode messages in unsupported encodings (0 - No transcoding, 1 - Only lossless transcoding to, 2 - Force transcoding to);

allowed_data_coding_list: list of allowed data coding list (0: SMSC Default Alphabet (SMPP 3.4) / MC Specific (SMPP 5.0), 1: IA5 (CCITT T.50)/ASCII (ANSI X3.4), 2: Octet unspecified (8-bit binary), 3: Latin 1 (ISO-8859-1), 4: Octet unspecified (8-bit binary), 5: JIS (X 0208-1990), 6: Cyrillic (ISO-8859-5), 7: Latin/Hebrew (ISO-8859-8), 8: UCS2 (ISO/IEC-10646), 9: Pictogram Encoding, 10: ISO-2022-JP (Music Codes), 13: Extended Kanji JIS (X 0212-1990), 14: KS C 5601);

target_data_coding: data coding which message text will be transcoded to if option *Transcode messages in unsupported encodings* is set to either *Only lossless transcoding to* or *Force transcoding to*. Applicable for vendor channels only (0 - *Transcode messages in unsupported encodings* is set to *No transcoding*, 1 - IA5 (CCITT T.50)/ASCII (ANSI X3.4); 3 - Latin 1 (ISO-8859-1); 5 - JIS (X 0208-1990); 6 - Cyrillic (ISO-8859-5); 7 - Latin/Hebrew (ISO-8859-8); 8 - UCS2 (ISO/IEC-10646); 9 - Pictogram Encoding; 10 - ISO-2022-JP (Music Codes); 13 - Extended Kanji JIS(X 0212-1990); 14 - KS C 5601);

default_data_coding: Default data coding scheme (0 - GSM 7-bit Default Alphabet (GSM 03.38), 1 - IA5 (CCITT T.50)/ASCII (ANSI X3.4), 3 - Latin 1 (ISO-8859-1), 5 - JIS (X 0208-1990), 6 - Cyrillic (ISO-8859-5), 7 - Latin/Hebrew (ISO-8859-8), 8 - UCS2 (ISO/IEC-10646), 9 - Pictogram Encoding, 10 - ISO-2022-JP (Music Codes), 13 - Extended Kanji JIS(X 0212-1990), 14 - KS C 5601);

reject_too_long_msg: is *Reject too long messages* enabled (0 - disabled, 1 - enabled);

repush_delivery_reports: is *Repush delivery reports* enabled, applicable for client channels (0 - disabled, 1 - enabled);

send_text_in_payload: is *Send text in payload* enabled, applicable for vendor channels (0 - disabled, 1 - enabled).

stateful_concat_msg: is *Stateful concatenated messages processing* enabled (0 - disabled, 1 - enabled). Applicable to *Auto* channels only;

segment_concatenation_timeout: *All segments submit timeout, sec* setting. If not set, it will not be given in the method response. Instead, the System parameter value (*Concatenated messages: All segments submit timeout, sec*) will be used. Applicable to *Auto* channels only;

fast_response_segment: *Fast response for every segment* (0 - No, 1 - Yes). If set to the *Default* value, the parameter is not shown in the response. Applicable to *Auto* channels only;

reject_incompleted_long_msg: *Reject incomplete messages* (0 - No, 1 - Yes). If set to the *Default* value, the parameter is not shown in the response. Applicable to *Auto* channels only.

cURL example is:

```
curl -X GET --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbG'
'https://test.api.com/rest/sms_channel?channel_status=offline'555
```

The same info - but for a specific SMS channel ID - can be obtained through the **GET:sms_channel{id}** method. The permission *Carriers* must be granted. **VPD restricted**.

POST:sms_channel method requires the permission *SMS channel edit* to be granted.

The obligatory parameters are *direction*, *enabled*, *guid*, *name*, *ip* and *port* (for channels of TR/TX/RX types). If no *car_id* is set, the channel is created under the *System owner* carrier. The default value for *Local address* is *Use switch default setting*. For example:

```
{
```

```

"car_id": 7102,
"direction": 0,
"enabled": 0,
"guid": "RESTTEST1",
"name": "RESTTEST",
"ip": "1.1.1.1",
"reroute_status_list": "UNDELIV|EXPIRED"
"port": 1024
}

```

where

direction: 0 - TX, 1 - RX, 2 - TR, 3 - Auto;

enabled: 0 - no, 1 - yes;

port: in range of 1024 - 65535;

reroute_status_list: pipe-separated status list for rerouting (possible values are *EXPIRED|DELETED|UNDELIV|UNKNOWN|REJECTD|ACCEPTD*).

guid must be unique, also the set '*IP-port-system ID-local address*' must be unique.

cURL example:

```

curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' --header
'Authorization: Bearer eyJhbGciOi' -d '{

```

```

"car_id": 7102,
"direction": 0,
"enabled": 0,
"guid": "RESTTEST1",
"name": "RESTTEST",
"ip": "1.1.1.1",
"port": 1024,
"reroute_status_list": "UNDELIV|EXPIRED"
}' 'https://test.api.com/rest/sms_channel'

```

The **PUT:sms_channel** method requires *SMS channel edit* permission granted. **VPD restricted**. Values that can be updated are listed in the *Model* window.

cURL example:

```

curl -X PUT --header 'Content-Type: application/json' --header 'Accept: application/json' --header
'Authorization: Bearer eyJhbGciOiJIU' -d '{"allowed_connects": 15}'
'https://test.api.com/rest/sms_channel/23900'

```

DELETE:sms_channel requires having permission *SMS channel edit* granted. **VPD restricted**. The successful response is: `{ "rows_affected": "1" }`
 Note that it is not possible to delete channels with linked POIs.

cURL example is:

```
curl -X GET --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cGU6IiwiZW5pdC50aW50aW91IiwiaWF0IjoiMjAxOS0xMi0wM2T0Mj01' 'https://test.api.com/rest/sms_poi'
```

The same logic applies to **GET:sms_poi{id}** where the obligatory parameter is SMS POI ID. Since the method is **VPD restricted** as well, if the POI is not available to the user, the *null* response will be returned.

To create an SMS POI using **POST:sms_poi** the user must have the permission *SMS POI edit* granted. The obligatory parameters such as *channel_id*, *product_id*, *start_date* and *end_date* must be specified. If either *start_date* or *end_date* specified in some wrong format, the error will be shown as well as when *start_date* is set greater than *end_date*. Both *channel_id* and *product_id* must belong to the same carrier. Note that it is impossible to create a POI with the same set of 'Channel+direction+service type' that already exists in the System. The body example is:

```
{  
  "channel_id": 11121,  
  "product_id": 18570,  
  "start_date": "2019.01.01",  
  "end_date": "2019.02.01"  
}
```

Additional parameters can be set:

accumulation_mode: flag (0 - Force buffering mode is disabled; 1 - enabled);

buffer_size, *speed_limit*: positive integer numbers;

priority: integer number that servers to place the POI in priority tables (*Products >> Change POI routing priorities*);

service_type: 6 symbols max (according to SMPP 3.4 specification);

timemask: *Buffering/Passthrough* modes schedule; must contain 168 symbols, only 0 and 1 are allowed.

cURL example is:

```
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cGU6IiwiZW5pdC50aW50aW91IiwiaWF0IjoiMjAxOS0xMi0wM2T0Mj01' -d '{ "channel_id": 11121, "product_id": 18570, "start_date": "2019.01.01", "end_date": "2019.02.01" }' 'https://test.api.com/rest/sms_poi'
```

The user must have the *SMS POI edit* permission granted to update an SMS POI (**PUT:sms_poi**) - the obligatory parameter is the POI ID. If there is no POI with the mentioned ID, the message *no data found* will be returned. The same filters as for *POST:sms_poi* except for *product_id* (since it cannot be changed) work for the method.

cURL example is:

rate_start_date: rate start date in the default format (for export type: *between*), if not set, the start date considered as the current time;

type: export type, possible values are *pending_at*, *effective_at*, *between*. If not set, *effective_at* is used.

The successful response will be as follows:

```
[{
  "mcc": "250",
  "mccmnc": "250",
  "dialcode": "7905",
  "country": "Russian Federation",
  "network": "All networks",
  "rate_start_date": "2018.05.10 00:00:00",
  "rate_end_date": "2100.01.01 00:00:00",
  "rate": 0.44,
  "prev_rate": 0.44,
  "change_type": "Same"
},
{
  "mcc": "250",
  "mnc": "01",
  "mccmnc": "250001",
  "dialcode": "7910",
  "country": "Russian Federation",
  "network": "MTS",
  "rate_start_date": "2019.05.10 00:00:00",
  "rate_end_date": "2020.05.10 00:00:00",
  "rate": 0.222,
  "prev_rate": 0.2,
  "change_type": "Increase"
}]
```

cURL example is:

https://test.api.com/rest/sms_rate?product_id=10156&rate_end_date=2019.05.11&rate_start_date=2018.05.11&type=between

To create a new rate using the **POST:sms_rate** method, the *SMS rate edit* permission is required. **VPD restricted.**

Obligatory parameters are *product_id* and *rows* (JSON array). If non-existent product ID is specified or the user has no access to the product, the message `{"error_message": "Product ID: 185 not found"}` will be given.

If start date is not specified in the *rows* array, it can be set in *default_start_date* parameter. If both *start_date* parameters are not set, the rate is active from the current timestamp. If both *start_date* parameters are set, *rate_start_date* has priority over *default_start_date*.

If *rate_end_date* is not set, it is considered as 2100.01.01 00:00:00. The start date must be less than the end date.

rate (positive decimal) and *mccmnc* (3 or 5-digit) are required to be specified, otherwise the output will contain *Valid rates provided: 0* report. Additional parameters *notes* and *sender_mccmnc* (3 or 6-digit sender MCCMNC) can be specified in the *rows* parameter. Note that if it is necessary to change the rate note only (without changing the price or the period), the System setting *Update rate notes for existing rates (0 - no, 1 - yes)* should be taken into account (if it is set to 0, the rate note will not be changed without price changes).

The body example is:

```
{
  "product_id": 18563,
  "default_start_date": "2016.06.01 00:00:00",
  "rows":
  [{"rate": "0.001", "mccmnc": "502003", "rate_end_date": "2020.06.01 00:00:00"},
   {"rate": "0.001", "mccmnc": "502004"}]
}
```

The response:

```
{
  "mini_report": "Valid rates provided: 2; New rates added: 2; Existing rates expanded/closed: 0; Rates
deleted: 0."
}
```

cURL example is:

```
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' --header
'Authorization: Bearer
eyJhbGciOiJIUzI1NiJ9.eyJyYXJyaWVyaX2lkjoiMSIsInJlbW90ZV9hZGRyYljoimTAuMTQ2LjluNzEiLCJsb2dpb
il6ImVmZXQiLCJleHAiOiIxNTcxMTUxNjA1In0.PSPM4Og5gH60wayK0BX1PMLn_bqDcG09MJEvs0Xju0Y' -
d '{
```

```
"product_id": 18563,
"default_start_date": "2016.06.01 00:00:00",
"rows":
[{"rate": "0.001", "mccmnc": "502001"},
 {"rate": "0.001", "mccmnc": "502002"}]
}' https://test.api.com/rest/sms_rate'
```

23.5.1.9 close_sms_rate

To close an existing SMS rate is possible through the **POST:close_sms_rate** method which is **VPD restricted**. The method requires the *SMS rate edit* permission to be granted as well as corresponding permissions from the *Edit rates\routing permissions* section.

For example, if it is necessary to close a client rate belonging to another user of the same contract company, the user must have the permissions *Edit client rates*, *View and edit objects of own contract companies*, *SMS rate edit*.

Mandatory parameters are *product_id* that is available for the user and *close_date* in the default format. In the *rows* parameter it is possible to specify additional conditions for the rate to be closed (*mccmnc*, *dial_code*, *sender_mccmnc*). If *close_date* is set as a date greater than the current rate's end date, no change is applied.

Example:

```
{
  "close_date": "2018.10.01",
  "product_id": 18563,
  "rows":
  [{"mccmnc": "510002"}]
}
```

The successful response will be as:

```
{
  "mini_report": "Rates closed: 1"
}
```

If no rates are found based on the provided conditions, the message `{"mini_report": "Rates closed: 0"}` will be returned.

cURL example:

```
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOi' -d '{"close_date": "2018.10.01", "product_id": 18563, "rows": [{"mccmnc": "510002"}]}' https://test.api.com/rest/close_sms_rate'
```

23.5.1.10 sms_rule

To get the SMS routing rules list (**GET:sms_rule** method), the permission *SMS routing rules view* must be granted to the user.

The response body can be as follows:

```

[[
  "id": 11863,
  "start_date": "2017.09.28 00:00:00",
  "end_date": "2100.01.01 00:00:00",
  "mcc_mnc_scope": 0,
  "next": 1,
  "next_context": "DEFAULT",
  "priority": 100,
  "status": 1,
  "tag_list_scope": 0,
  "type": 1,
  "last_updated_by": "kate",
  "vendor_product_scope": 0,
  "vendor_product_type_list": "quickstart-vendor (SMS)",
  "vendor_product_type_scope": 0,
  "choice_list_original": "[{\\"choice_items\\":[{\\"type\\":\\"formula\\",\\"value\\":\\"MRG\\",\\"vendor_product_ids\\":
[10142,13446],\\"share\\":\\"\\",\\"test_share\\":\\"\\",\\"max_routes\\":\\"\\"},{\\"condition\\":\\"MRG > -1\\"}]}]",
  "client_product_list": "12363",
  "client_product_scope": 1,
  "client_product_type_list": "life_SMS_test",
  "client_product_type_scope": 1,
  "context": "DEFAULT",
  "descr": "test_reg_exp",
  "dnis_pattern": "73.{11,}",
  "last_updated": "2019.09.10 17:23:10",
  "mcc_mnc_list": "214001,214005,214009"
}}

```

where


```
{
  "client_product_scope": 0,
  "client_product_type_scope": 0,
  "condition": "MRG > -0.5",
  "context": "TEST",
  "choice_list_original": "[{\\"choice_items\\":[{\\"type\\":\\"formula\\",\\"value\\":\\"MRG\\",\\"vendor_product_ids\\":
[10142,13446],\\"share\\":\\"\\",\\"test_share\\":\\"\\",\\"max_routes\\":\\"\\"},{\\"condition\\":\\"MRG > -1\\"}]}]",
  "end_date": "2019.01.01",
  "mcc_mnc_scope": 1,
  "mcc_mnc_list": "250%|204001",
  "next": 2,
  "next_context": "TEST2",
  "priority": 10,
  "start_date": "2018.01.01",
  "status": 0,
  "descr": "TESTREST",
  "tag_list_scope": 0,
  "type": 1,
  "vendor_product_scope": 0,
  "vendor_product_type_scope": 1,
  "vendor_product_type_list": "Test_vendor"
}
```

where

priority: from 0 to 100;

status: 0 (disabled) or 1 (enabled);

type: 1 (regular), 2 (test) or 4 (block);

start_date: cannot be set to a value greater than *end_date*;

end_date: cannot be set to a value less than the current date;

next: 1 (huntstop), 2 (switch to context) or 3 (continue search with the same context).

choice_list_original: choices list in JSON format. Example is:

```
[
  {\\"choice_items\\":
```

```
[{"type":"formula","value":"MRG","vendor_product_ids":[10142,13446],"share":"","test_share":"","max_routes":"","condition":"MRG > -1"}]
```

where each *choice_items* means a separate choice - *type:product* stands for static routing, *type:formula* - dynamic routing (*value* stands for the *Formula* field);

carrier_id, *product_id*, *poi_id* specify which carrier ID, product ID and POI ID are set in the static choice, *null* means *All*;

share: share within the choice;

test_share: Test share set in the dynamic choice;

max_routes: Max routes set in the dynamic choice;

condition: choice's condition;

rate_notes: selected rate notes in the dynamic choice;

vendor_product_ids: vendor product IDs of the dynamic choice.

cURL example:

```
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOi...
```

```
{
  "client_product_scope": 0,
  "client_product_type_scope": 0,
  "condition": "MRG > -0.5",
  "context": "TEST",
  "choice_list_original": "[{"choice_items":[{"type":"formula","value":"MRG","vendor_product_ids":[10142,13446],"share":"","test_share":"","max_routes":"","condition":"MRG > -1"}]",
  "end_date": "2019.01.01",
  "mcc_mnc_scope": 1,
  "mcc_mnc_list": "250%|204001",
  "next": 2,
  "next_context": "TEST2",
  "priority": 10,
  "start_date": "2018.01.01",
  "status": 0,
  "descr": "TESTREST",
  "tag_list_scope": 0,
  "type": 1,
```

```
"vendor_product_scope": 0,  
"vendor_product_type_scope": 1,  
"vendor_product_type_list": "Test_vendor"  
}' 'https://.test.api.com/rest/sms_rule'
```

To update an existing rule, an user can use **PUT:sms_rule** method - for this *SMS routing rules edit* must be granted as well as permissions from *Edit rates/routing permissions* section. **VPD restricted**.

The fields that can be updated are closely the same as for **POST:sms_rule**, additionally their description can be found in the *Model* window.

Description	Parameter Type	Data Type
	body	<p>Model | Example Value</p> <pre> sms_rule_put_in { ani_pattern (string, optional): ANI filter pattern, choice_list_original (string, optional): Choice list in JSON format, client_product_list (string, optional): List of client product IDs separated by | (pipe), client_product_scope (integer, optional): Client product scope: 1 - inclusive, -1 exclusive, 0 - all, client_product_type_list (string, optional): List of client product types separated by | (pipe), client_product_type_scope (integer, optional): Client product type scope: 1 - inclusive, -1 exclusive, 0 - all, comments (string, optional): Rule comments, condition (string, optional): Rule condition, context (string, optional): Rule context, descr (string, optional): Rule description, dnis_pattern (string, optional): DNIS filter pattern, end_date (string, optional): Rule end date, mcc_mnc_list (string, optional): MCCMNC list separated by separated by | (pipe), mcc_mnc_scope (integer, optional): MCCMNC selection scope: 1 - inclusive, -1 exclusive, 0 - all, msg_text_filter (string, optional): Message text regexp, net_list (string, optional): List of network IDs separated by | (pipe), net_scope (integer, optional): Network selection scope: 1 - inclusive, -1 exclusive, 0 - all, next (integer, optional): Rule options: 1 - Huntstop, 3 - Continue search within same context, 2 - Switch to context, next_context (string, optional): Next rule context, priority (integer, optional): Rule priority, probability (number, optional): Rule </pre>

Model window

cURL example is:

```
curl -X PUT --header 'Content-Type: application/json' --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOiJ' -d '{"tag_list": "test"}' 'https://test.api.com/rest/sms_rule/14548'
```

Method **DELETE:sms_rule** requires permission *SMS routing rules edit* to be granted. The successful response is `{"rows_affected": "1"}`.

cURL example:

```
curl -X DELETE --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOiJIUzI' 'https://test.api.com/rest/sms_rule/14520'
```

23.5.1.11 sms_translation_rule

To get an SMS translation rules list (**GET:sms_translation_rule** method), the permission *SMS translation rules view* must be granted to the user.

Additional filters can be applied to get more precise info.

The response body can be as follows:

```
[[  
  "id": 10001,  
  "entity_type": 3,  
  "start_date": "2016.05.23 18:54:02",  
  "end_date": "2100.01.01 00:00:00",  
  "src_product_list": "10113,10183,10143,10320,11006",  
  "src_template": ".*[^0-9].*",  
  "translation": "5",  
  "priority": 100,  
  "direction": 1,  
  "stage": 1,  
  "status": 1,  
  "name": "test",  
  "treat_as_substitution": 1,  
  "next": 3  
]]
```

where

id: rule ID;

entity_type: Entity (1 - Sender ID, 2 - Destination number, 3 - Sender TON, 4 - Sender NPI, 5 - Destination TON, 6 - Destination NPI, 7 - Registered delivery, 8 - Flash message, 9 - Message text);

src_product_list: client product IDs list, if is not returned in the response, set to *All*;

src_template: Sender ID pattern;

translation: Translation value;

direction: Rule direction (1 - MT, 2 - MO);

stage: Rule stage (0 - prerouting, 1 - postrouting);

status: Rule status (0 - disabled, 1 - enabled);

treat_as_substitution: Treat this rule as substitution (0 - no, 1 - yes);

next: Next action (1 - continue, 3 - hunt stop).

cURL example is:

```
curl -X GET --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOi'
'https://test.api.com/rest/sms_translation_rule'[57]
```

To get a specific rule (if its ID is known), it is possible to use the **GET:sms_translation_rule{id}** method.

cURL example is:

```
https://test.api.com/rest/sms\_translation\_rule/10008[57]
```

A new rule can be created through the **POST:sms_translation_rule** method - the *SMS translation rules edit* permission must be granted. The obligatory parameters are *direction*, *start_date*, *end_date*, *entity_type*, *next*, *priority*, *stage*, *translation*, *name*. If *entity_type* is 9 (message text), the *next* option must be specified as well. If *status* is not specified, the rule is created as enabled.

```
{
  "direction": 2,
  "start_date": "2000.01.01",
  "end_date": "2100.01.01",
  "entity_type": 9,
  "next": 1,
  "priority": 101,
  "stage": 1,
  "translation": "test",
  "name": "TESTREST"
```

```
}

```

A successful response will contain the ID of a created rule.

cURL example is:

```
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' --header
'Authorization: Bearer eyJhbGciOiJ' -d '{"direction": 2, "start_date": "2000.01.01", "end_date": "2100.01.01",
"entity_type": 9, "next": 1, "priority": 101, "stage": 1, "translation": "test", "dst_product_list": "18570",
"src_product_list": "15956,18563", "name": "TESTREST"}' https://test.api.com/rest/sms_translation_rule'
```

To update an SMS translation rule (**PUT:sms_translation_rule** method), the permission *SMS translation rules edit* must be granted to the user. The rule ID must be set as the obligatory parameter, if the rule ID is not found, the *no data found* message will be returned to the user.

cURL example:

```
curl -X PUT --header 'Content-Type: application/json' --header 'Accept: application/json' --header
'Authorization: Bearer eyJhbGciOiJ' -d '{"direction": 1}'
'https://test.api.com/rest/sms_translation_rule/15886'
```

DELETE:sms_translation_rule requires the *SMS translation rules edit* permission to be granted. The rule ID that should be deleted must be specified - in case of success, the message { "rows_affected": "1" } will be returned.

cURL example is:

```
curl -X DELETE --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOiJIUz'
'https://test.api.com/rest/sms_translation_rule/15890'577
```

23.5.1.12 invoice

The method is **VPD restricted**.

Additional filters such can be set such as *car_id*, *acc_id*, *currency_code* (the exact match is required - e.g, *EUR* not *euro*), *product_type_id* (system type IDs are 1 - International, 2 - US domestic, 3 - SMS, 5 - Balance correction, 6 - DID, 7 - HLR, 8 - DID/TFN fees, 9 - SMS pack, 10 - IM) etc.

The response example is:

```
[{
  "id": 50791,
  "inv_ref_code": "0000029",
  "inv_start_date": "2015.02.18 00:00:00",
  "inv_end_date": "2015.02.19 00:00:00",
  "inv_issue_date": "2015.02.18 00:00:00",
  "inv_estimated_amount": 22.2,
```

```
"pay_status_name": "Paid in full",  
"inv_direction": 0,  
"currency_code": "EUR",  
"acc_id": 10015,  
"type": "Invoice to partner",  
"status": "Sent",  
"doc_id": 10806,  
"inv_last_updated": "2015.02.18 15:15:58"  
}}
```

cURL example is:

```
curl -X GET --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOi'  
'https://test.api.com/rest/invoice?car_id=745'[573]
```

To get an invoice by its ID, the method **GET:invoice{id}** can be used, which returns the same info and requires the same permission to be granted. VPD restricted.

Updating an existing invoice is possible through **PUT:invoice** - corresponding permissions from the *Invoicing* section must be granted (e.g. to change a client invoice, the permission *Generate client invoice* is required). To confirm an invoice (*send_mode* is either 1 or 2), the permission *Confirm client invoice* must be given. The same applies to the vendor side correspondingly. **VPD restricted.**

Obligatory parameters are *car_id*, *currency_code*, *period_from*, *period_to* and *reg_date*. If *direction* is not set, it is considered as 1 (outgoing/vendor invoices).

Parameters such as *file_id*, *file_name*, *make_auto_mapping*, *presented_amount*, *send_mode*, *ref_code*, *reg_date* can be changed:

```
{  
  "car_id": 2487,  
  "currency_code": "AKS",  
  "period_from": "2019.10.01",  
  "period_to": "2019.10.04",  
  "reg_date": "2019.10.03",  
  "direction": 0,  
  "ref_code": "resttest"  
}
```

If there is no invoice found based on the provided *car_id*, *currency_code*, *period_from*, *period_to* (exact match is required), the message *Invoice not found* will be returned. If the invoice is already confirmed, the message *Invoice is not a draft* will be shown

The successful response will contain the invoice ID that was updated:

```
{ "inv_id": "257664",  
  "rows_affected": "1"}
```

cURL example is:

```
curl -X PUT --header 'Content-Type: application/json' --header 'Accept: application/json' --header  
'Authorization: Bearer eyJhbGciOi' -d '{ "car_id": 2487, "currency_code": "AKS", "period_from":  
"2019.10.01", "period_to": "2019.10.04", "reg_date": "2019.10.03", "direction": 0, "ref_code": "resttest" }'  
'https://test.api.com/rest/invoice'
```

23.5.1.13 payment

To get a list of payments is possible through **VPD restricted** method **GET:payment**.

Returned info will contain the following fields:

```
[[  
  "id": 10064,  
  "pay_amount": -100.65,  
  "pay_currency_code": "BAN",  
  "pay_amount_agr_currency": 0.14,  
  "acc_currency_code": "EUR",  
  "pay_ref_code": "xxx21",  
  "pay_date": "2015.11.23 13:20:00",  
  "pay_direction": 1,  
  "cnt": 337  
]]
```

where

id: payment ID;

pay_amount: Bank statement amount;

pay_currency_code: Bank statement amount currency;

pay_amount_agr_currency: Amount debited;

acc_currency_code: account currency;

cnt: Number of records in selection.

cURL example:

```
curl -X GET --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOi'  
'https://test.api.com/rest/payment[575]'
```

To create a payment is possible through the **POST:payment** method that requires correct permissions from the *Payments* section to be granted. For example, to create a client (*direction* - 0) draft (non-confirmed payment - *confirm* is set to 0) the permission *Register payments from client* must be granted, to create a confirmed payment (*confirm* is set to 1), the permission *Confirm client payment* is needed. The same works for the vendor side (*direction* - 1).

Obligatory parameters are *acc_id*, *amount*, *currency_code*, *confirm*, *direction*, *ref_code*. The response body is as follows:

```
{  
  "direction": 0,  
  "confirm": 0,  
  "acc_id": 15082,  
  "amount": 10,  
  "currency_code": "USD",  
  "dcheck": "2019.10.17",  
  "ref_code": "RESTTEST3",  
  "expire_date": "2100.01.01"  
}
```

where

direction: payment direction (0 - Inbound, 1 - Outbound);

confirm: 0 - draft, 1 - confirmed payment;

amount: payment amount in *currency_code*;

currency_code: currency code from *Reference books\Currency exchange rates*. If *amount_agr_currency* is not set and *currency_code* is different from the account currency, exchange rate active on the payment date must be present otherwise the error *Payment amount cannot be converted to the account currency* will be given;

dcheck: payment date;

expire_date: payment expiry date (must be equal or greater than *dcheck*).

cURL example is

```
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbG' -d '{"direction": 0, "confirm": 0, "acc_id": 15082, "amount": 10, "currency_code": "USD", "dcheck": "2019.10.17", "ref_code": "RESTTEST3", "expire_date": "2100.01.01"}' 'https://test.api.com/rest/payment'
```

To update a payment (**PUT:payment** method), permission *Payments* must be granted.

cURL example is:

```
curl -X PUT --header 'Content-Type: application/json' --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbG' -d '{"acc_id": 15081 }' 'https://test.api.com/rest/payment/12323'
```

To delete a payment through **DELETE:payment**, permission *Payments* must be granted. Successful action will result in `{ "rows_affected": "1" }` message.

cURL example is:

```
curl -X DELETE --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOiJ' 'https://test.api.com/rest/payment/12318'
```

23.5.2 SMS statistics

23.5.2.1 sms_edr

The method returns EDR info (the maximum number of returned rows are set in the System setting *Maximum record count in REST API responses*) - note that the retail traffic will be shown as well, although with certain limitations (for example, without mention of the campaign ID etc). The obligatory parameter is *start_date*. If *end_date* is not set, period between *start_date* and *start_date*+1 hour is checked.

Since the method is **VPD restricted**, the user can extract data based on *View/edit permissions* (set in the main web interface on the *Users* tab) - for example, if *View and edit objects of managed accounts* is set, the user will get EDRs for the carriers managed by the user (configured in *Start\Administration\Account manager history*). If the permission *Show message content* is not granted, it will not be possible to view message text:

```
{... "text": "***Message content hidden***", ...}
```

Additionally the filter *direction* can be set - if specified as 0, only the client side information will be shown, 1 - only vendor-side. By default both legs are present. Most of non-obligatory filters are self-explanatory.

hide_system_statuses - hide system statuses (for example, *NO ROUTES*, *VND CNL NOT BND*) - they will be masked with *UNDELIV*;

is_last - set to 1 to fetch only the last EDRs/attempts within a single transaction (i.e. due to rerouting based on unsuccessful response from vendor);

src_is_successful/dst_is_successful - set to 1 for messages considered billable for client and vendor side respectively;

status - message status, case-sensitive, the exact match is required;

op_edr_type (and other filters which starts with *op*-prefix)- comparison operator for *edr_type* field. Valid values: ==, !=, >, <, >=, <=, =@, !@, =~, !~. For example, *edr_type* set to 3 and *op_edr_type* is set to ==, EDRs with type 3 (test messages) will be shown.

Note that comparison operators can be used in regard to fields contain digit values (such as *edr_type*):

== equal to

!= not equal to

> greater than

< less than

>= greater than or equal to

<= less than or equal to

The following ones - for strings:

=@ is a substring

!@ is not a substring

=~ *like* operator

!~ *not like* operator

For example, to retrieve all EDRs for the specified period which contain *BND* word in the statuses, the following filters can be set in addition to *start_date/end_date*:

op_status: =@

status: *BND*

To get an EDR which starts with *loc* prefix, contains timestamp *20190803055418* and one symbol after it:

op_vendor_message_id: =~

vendor_message_id (one of the following values is possible): %*20190803055418*% or **20190803055418** or *loc*%*20190803055418*_ or **20190803055418*_

Successful response body will be as follows:

```
{
  "edr_date": "2019.08.01 19:21:03",
  "client_message_id": "test-20190801521",
  "vendor_message_id": "loc_test-test-20190801521-1",
  "sender_name": "test",
```

```
"dnis": "789123123",  
"network": "All networks",  
"country": "Russian Federation",  
"text": "text",  
"status": "VND CHN NOT BND",  
"edr_type": 1,  
"mccmnc": "250",  
"vendor_rate": 0.1,  
"client_acc_id": 10011,  
"vendor_acc_id": 299,  
"part_amount": 1  
},  
.....  
{  
  "edr_date": "2019.08.03 08:52:26",  
  "client_message_id": "test-201908f34f6f",  
  "vendor_message_id": "loc_test-201908f34f6f-1",  
  "sender_name": "77778",  
  "dnis": "79100004620",  
  "network": "MTS",  
  "country": "Russian Federation",  
  "text": "This is test message",  
  "status": "DELIVRD",  
  "edr_type": 1,  
  "client_rate": 0.5,  
  "mccmnc": "250001",  
  "vendor_rate": 0.5,  
  "client_acc_id": 10977,  
  "vendor_acc_id": 10978,  
  "part_amount": 1  
}}
```

where

edr_date: timestamp when the client's submit was received;

client_rate/vendor_rate: client or vendor cost in the account's currency;

edr_type: 1 - MT; 2 - MO (2-way message); 3 - test message (sent from 'Send SMS' tab); 4 - buffered message;

part_amount: amount of possible segments for a long message. For example, if a client has sent a long message which, based on the SMPP 3.4 specification, should be separated into 2 parts - *part_amount* will be 2.

23.5.2.2 sms_usage_stats

The method shows daily statistics based on period and product ID.

Since the method is **VPD restricted**, it returns data based on the permissions from the *View/edit permissions* section ([Administration\Users](#)^[9†]). E.g., if the user is granted with *View and edit objects of own contract companies*, the result will be shown only if the product indicated in *product_id* filter belongs to the user's contract company. The note is relevant to the System owner's users since non-System owner's users are allowed to check statistics of their carriers only.

The obligatory parameters are *start_date*, *end_date* and *product_id*. If the user does not have permissions to view the stats of the specified product ID (can be configured in the *View/edit permissions* section of the *Users* tab), the corresponding warning will be shown.

Note that since daily cubes are used, if the *start_date* or the *end_date* parameters contain hours, the specified day will not be taken into account. Example: *start_date* is set as 2019.08.05 01:00:00, *end_date* is set as 2019.08.06 - if there is traffic for 2019.08.05-2019.08.06, it will not be shown (since *start_date* should be set as 2019.08.05 00:00:00 - which is equal to 2019.08.05).

In order to get stats based on hourly data, the filter *use_hourly_data* should be set as 1.

The parameter *filter* (case-insensitive) serves to show only those records that are suitable for the filter based on either destination or country. For example, if the response body contains *Russian Federation, MegaFon, Russian Federation, MTS* and *Aruba, All networks* and the *filter* is set as

- *ru* - records for *Russian Federation, MegaFon* and *Russian Federation, MTS* will be shown
- *aru* - results for *Aruba, All networks* will be shown
- *all* - results for *Aruba, All networks* will be shown
- *MTS - Russian Federation, MTS* will be shown
- *egaFon* - nothing will be shown

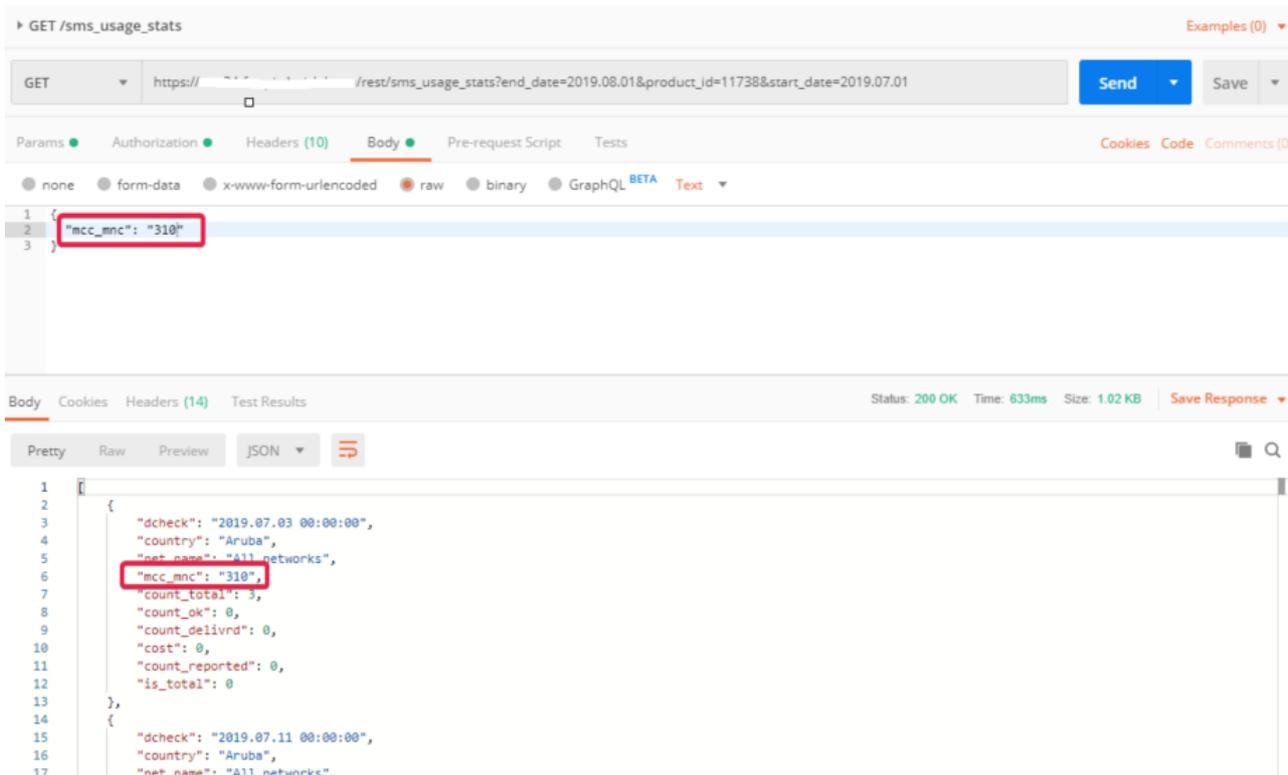
the *first_rec* and *rec_count* parameters are intended for pagination.

first_rec: first record (for example, if set to 10, first 9 records will not be shown and the info will be shown starting from the 10th row)

rec_count: maximum number of records (for example, if set to 2, 2 records will be shown. If *first_rec* set to 10 and *rec_count* set to 2, the 10th and 11th rows will be shown)

orderby_clause: list of column numbers separated by commas

body shows results only for specified MCCs/MCCMNCs (comma-separated). It comes handy when using a third-party service - for example, Postman where there is possibility to specify a link and body separately:



Using Postman to use body parameter and filter the result by MCCs/MCCMNCs

Example of cURL:

```
curl -k -X GET --header 'Content-Type: application/json' --header 'Accept: application/json' --header 'Authorization: Basic SOE6YWRtaW4=' -d '{ "mcc_mnc": "310" }' https://test.api.com/rest/sms_usage_stats?end_date=2019.08.01&product_id=11738&start_date=2019.07.01
```

If there is no stats suitable according to the filters, the response body will be as follows:

```
{
  "country": "Total",
  "net_name": "Total",
  "count_total": 0,
  "count_ok": 0,
  "count_delivrd": 0,
  "cost": 0,
  "count_reported": 0,
  "is_total": 1
}
```

In case there is some statistics for the past traffic, the response body can have the following format:

```
{
  "dcheck": "2019.07.02 00:00:00",
  "country": "Russian Federation",
  "net_name": "MTS",
  "mcc_mnc": "250001",
  "count_total": 100,
  "count_ok": 19,
  "count_delivrd": 13,
  "cost": 8.39,
  "count_reported": 13,
  "is_total": 0
},
{
  "dcheck": "2019.07.02 00:00:00",
  "country": "Russian Federation",
  "net_name": "MegaFon",
  "mcc_mnc": "250002",
  "count_total": 510,
  "count_ok": 99,
  "count_delivrd": 80,
  "cost": 43.72,
  "count_reported": 80,
  "is_total": 0
},
.....
{
  "dcheck": "2019.08.05 00:00:00",
  "country": "Russian Federation",
  "net_name": "MegaFon",
  "mcc_mnc": "250002",
  "count_total": 30,
  "count_ok": 5,
```

```

    "count_delivrd": 0,
    "cost": 2.26,
    "count_reported": 0,
    "is_total": 0
  },
  {
    "country": "Total",
    "net_name": "Total",
    "count_total": 2293,
    "count_ok": 390,
    "count_delivrd": 266,
    "cost": 155.07,
    "count_reported": 266,
    "is_total": 1
  }
}]

```

where

dcheck: specific day;

count_total: number of attempts;

count_ok: number of submitted messages;

count_delivrd: number of delivered messages (with DELIVRD/ACTIVATED status);

cost: cost in the account currency;

count_reported: number of reported messages (for which any delivery status has been returned);

is_total: set to 0 if the data is for a specific day/hour, set to 1 if returns *Total* result for the specified period.

23.5.2.3 sms_usage_summary

Getting SMS statistics summary accumulated by days is possible through **VPD restricted** method **GET:sms_usage_summary**.

The obligatory parameters are *start_date*, *end_date* (including the specified day) and *product_id*. Note that if the product ID does not exist or it exists but does not belong to the user, a corresponding warning will be shown. If *end_date* is less than *start_date*, the result will be empty. If there are no statistics available for the specified period (daily if *use_hourly_data* is empty or set to 1, hourly - if the filter is set to 1), all fields in the result will contain 0 as a value.

The successful response body will be as follows:

```
[[
```

```
"dcheck": "2019.08.08 00:00:00",  
"charge": 33.33,  
"count_total": 100,  
"count_ok": 50,  
"count_delivrd": 49,  
"count_reported": 50  
},  
....  
{  
"dcheck": "2019.08.10 00:00:00",  
"charge": 2.67,  
"count_total": 6,  
"count_ok": 6,  
"count_delivrd": 6,  
"count_reported": 6  
}  
]
```

where

dcheck: specific day;

charge: revenue/cost in the account currency;

count_total: number of attempts;

count_ok: number of submitted messages;

count_delivrd: number of delivered messages (with DELIVRD or ACTIVATED status);

count_reported: number of reported messages (for which any delivery status has been returned).

Additionally it is possible to set the filter *use_hourly_data* to 1 (if other value than 0 or 1 is specified, the response will return an error) which means that the summary will be divided by hours, for example:

```
[{  
"dcheck": "2019.08.09 00:00:00",  
"charge": 33.33,  
"count_total": 100,  
"count_ok": 50,  
"count_delivrd": 49,
```

```
"count_reported": 50
},
{
  "dcheck": "2019.08.09 01:00:00",
  "charge": 0,
  "count_total": 0,
  "count_ok": 0,
  "count_delivrd": 0,
  "count_reported": 0
},
.....
{
  "dcheck": "2019.08.09 22:00:00",
  "charge": 2.67,
  "count_total": 6,
  "count_ok": 6,
  "count_delivrd": 6,
  "count_reported": 6
},
{
  "dcheck": "2019.08.10 23:00:00",
  "charge": 0,
  "count_total": 0,
  "count_ok": 0,
  "count_delivrd": 0,
  "count_reported": 0
}]
```

cURL example is

```
curl -X GET --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOiJIUzI1Ni'  
'https://test.api.com/rest/sms_usage_summary?  
end_date=2019.08.10&product_id=11738&start_date=2019.08.09&use_hourly_data=1'
```

23.5.2.4 sms_poi_ema_stats

The method **GET:sms_poi_ema_stats** returns statistics based on POI+MCCMNC - these stats are used in routing for conditions and formulas - for example, routing metrics *CLPoiASR*, *CLPoiDLR* etc. *mccmnc*, *poi_id*, *start_date* can be set as filters. *start_date* filter excludes stats updated before the date specified.

The response body will be like:

```
[{
  "poi_id": 3432,
  "mccmnc": "425002",
  "asr_rate": 0.99924,
  "last_updated": "2019.08.14 13:35:33",
  "delivery_rate": 0.6122,
  "delivery_delay": 0.04819,
  "asr_attempts": 100,
  "dlr_attempts": 100
}]
```

where *asr_rate/delivery_rate* is a ratio of ASR/DLR for last *asr_attempts/dlr_attempts* correspondingly.

cURL example is:

```
curl -X GET --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOiJIUzI1NiJ9.eyJyYXJyaWVzX2lkIjo1' 'https://test.api.com/rest/sms_poi_ema_stats'
```

23.5.2.5 sms_ema_rule

The method **GET:sms_ema_rule** returns routing rule statistics that is equivalent to routing metrics such as *MRGH*, *MRGD*, *RuleAttCNT* etc.

To use the method, the permission *SMS routing statistics edit* must be granted.

The response body will be as follows:

```
[{
  "id": 1302,
  "mrgh": 0,
  "mrgd": 0.0012,
  "ruleattcnt": 1,
  "rulesuccnt": 1,
  "ruledlvcnt": 0
},
```



```
"currency_code": "string",  
"first_name": "string",  
"last_name": "string",  
"middle_name": "string",  
"phone_number": "string",  
"pwd": "string",  
"url": "string",  
"user_name": "string",  
"vat_id": "string",  
"zip_code": "string"  
}
```

Obligatory fields are: *captcha* (if the request is launched from an IP address not set in the *Campaign Portal trusted IP list (separated by comma)* parameter: *Administration\System settings\SMS*), *currency_code*, *pwd* and *user_name*. *user_name* must be an email address where the registration email will be sent (additionally, a user can be activated by the method *activate_user*). Once the user will confirm the registration (by opening the link), a corresponding carrier, user, account and agreement will be created in the main web interface.

captcha can be received through the **GET:captcha** method (*test.api.com/rest/captcha*). Example is:

```
{  
  "captcha": "t78hn",  
  "currency_code": "USD",  
  "pwd": "t",  
  "user_name": "test@alarislabs.com"  
}
```

If the parameter *car_name* is not set, it is automatically generated based on the System setting *Campaign Portal carrier name prefix (used if company name is not set)*. If *currency_code* is set as a currency which is not defined in *Reference book\Currency exchange rates*, the following error will be shown: "error_message": "Currency XXX not accepted".

If a user with the same email address (*user_name*) already exists or *car_name* is already used, the message *010:Such carrier name already exists/011:Such user name already exists* will be shown. If the specified *cc_id* doesn't exist, a warning will be shown as well.

The *url* parameter can be set as a link where the user will be redirected after confirming the registration (the user will receive an email with the respective link).

cURL example is:

```
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' -d '{
  "captcha": "t",
  "currency_code": "USD",
  "pwd": "t",
  "user_name": "test@alarislabs.com"
}' 'https://test.api.com/rest/register_user'
```

23.5.3.2 activate_user

Activation of a campaign portal user can be done through the **POST:activate_user** method. Note that the method requires no dedicated permission.

Body format:

```
{ "activation_key": "string"}
```

where *activation_key* is the key received through an email sent once the user is registered (through the interface or *register_user* method).

For example, if a user receives the following link through the email: <https://test.api.com/?key=CJ1HJGfCIAAGNONFh1P5EhmF9Fj18lhdIF4aoJNlx17M6GPHGAdNMh7MsC2c2GHH>, the following request can be used:

```
{ "activation_key":
  "CJ1HJGfCIAAGNONFh1P5EhmF9Fj18lhdIF4aoJNlx17M6GPHGAdNMh7MsC2c2GHH"}
```

The response body will be as follows:

```
{ "id": "11783"}
```

where *id* is the newly registered user ID.

If the activation key is no longer valid, the following error will be shown:

```
{ "error_message": "Token is expired"}
```

cURL example is:

```
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' -d
'{"activation_key": "CJ1HJGfCIAAGNONFh1P5EhmF9Fj18lhdIF4aoJNlx17M6GPHGAdNMh7MsC2c2GHH"}'
'https://test.api.com/rest/activate_user'
```

Another way to obtain the activation key is the **GET:activation_key** method - *car_name* and *user_name* should be specified.

The returned response will contain the same key that is sent in a registration email:

```
{ "activation_key": "GC6HJ3N4g8CLnhgM15HIDEJmH9tnjBfLCmKkL9bJcO5PIJOFILH23sl6L8oDI0EN"}
```

cURL example is:

```
curl -X GET --header 'Accept: application/json' --header 'Authorization: Bearer 280b-4Q'  
'https://test.api.com/rest/activation_key?car_name=REST_TEST%2021&user_name=test%  
40alarislabs.com'589'
```

23.5.3.3 sms_rate_plan

Subscribing to a rate plan (parent product) is possible using the **POST:sms_rate_plan** method:

```
{  
  "acc_id": 15112,  
  "rate_plan_id": 17763  
}
```

where *acc_id* is the user's account ID and *rate_plan_id* is the parent product ID. The response will return the ID of the child product created under the partner's account:

```
{ "id": "18621"}
```

If *acc_id* and *rate_plan_id* are not compatible (for example, they are in different currencies) or the rate plan is not available for subscription, one of the following error messages will be shown:

```
{ "error_message": "Account for parent product ID:17763 not found"}
```

or

```
{ "error_message": "Product with ID:1 not allowed"}
```

It is not possible to assign a rate plan to another partner's account. Also note that this method does not require any dedicated permission.

Important note: the user can have several rate plans assigned to a single account - one for SMS and one per each IM service, which cannot be changed afterwards:

```
{ "error_message": "Cannot apply more than one rate plan per account"}
```

Method **GET:sms_rate_plan** can be used to obtain information of the assigned rate plan. If no rate plan is assigned, an empty response will be returned: []

If any rate plan has been assigned, the response body will be:

```
{  
  "id": 18621,  
  "descr": "Sys_EUR",  
  "rate_plan_id": 17763,  
  "currency_code": "EUR"  
  "im_channel_id": 0  
}
```

where *id* is the product ID and *im_channel_id* is the ID of the IM channel (the default ID is 0 which is the same as the regular SMS product). No special permission should be granted to fetch the info.

If the method is invoked by the System owner user, it is **VPD restricted**.

To list all available rate plans, it is possible to use the **GET:available_sms_rate_plan** method. The response will contain a JSON array with product details. Note that a rate plan is a System owner's product in the same currency as the account of the user's partner - for example, if the account currency is EUR, only rate plans in the EUR currency will be shown:

```
[[
  "id": 17763,
  "name": "Sys_EUR",
  "currency_code": "EUR"
  "im_channel_id": 0
]]
```

where *id* is the parent product ID and *name* - its description/name.

23.5.3.4 sms_pack_subscr

Method to manage pack subscriptions (note that the pack will have a priority over the rate plan if both are used) through the method **POST:sms_pack_subscr** which requires the *Show packs* permission. Example of the body:

```
{
  "acc_id": 15112,
  "pack_id": 728
}
```

where *acc_id* is the user's account ID. If the pack has been applied, the following message will be given:

```
{
  "id": "3249",
  "message": "Package successfully added"
}
```

The error will be shown in case of a wrong pack or account ID, if the pack does not have any MCCMNC assigned, the number of the *Messages included* is 0 or the pack's contract company or start/end date is not suitable for the account:

```
:
{ "error_message": "Package with ID:0 not found or not active"}
```

Note that it is impossible to subscribe to a pack in a different currency than the account currency. The following error will be returned:

```
{ "error_message": "Currency mismatch"}
```

cURL example is:

```
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOi' -d '{
```

```
  "acc_id": 15112,
```

```
  "pack_id": 728
```

```
}' 'https://test.api.com/rest/sms_pack_subscr'
```

GET:sms_pack_subscr allows checking the user's subscription.

Method **PUT:sms_pack_subscr** is intended to cancel the subscription. Two options are possible - with full and partial refund. The obligatory parameters are body and subscription ID. the body for full refund should contain only one parameter:

```
{ "cascade": 1}
```

To use the method with full refund the following permissions must be granted: *Edit user subscriptions*, *Generate client invoice*, permissions from the *View/edit permissions* section - for example, if the permission *Manage objects of same carrier* is granted, the user will be able to cancel own subscription only. If the subscription has been deleted, the response body will be as follows:

```
{ "rows_affected": "1"}
```

The body for partial refund should contain 2 parameters:

```
{  
  "cascade": 0,  
  "refund_amount": 0.0000001  
}
```

If *refund_amount* is not specified (while *cascade* is set to 0), no refund will be applied. To use the method with partial refund the following permissions must be granted: *Edit user subscriptions*, permissions from *View/edit permissions* section - for example, if all permissions from the section are granted, the user will be able to cancel any subscription.

23.5.3.5 sms_pack

To obtain SMS packs available for subscription use the method **GET:sms_pack**. The response will contain the active packs that are found suitable according to the filters of currency, contract company and carriers list:

```
[{  
  "id": 728,  
  "pack_name": "test",  
  "pack_descr": "1",  
  "subscription_cost": 1,  
  "currency_code": "EUR",
```

```

    "included_sms_count": 1,
    "priority": 100,
    "start_date": "2017.03.10 00:00:00",
    "end_date": "2100.01.01 00:00:00",
    "pack_cc_id": 1
    "im_channel_id": 0
  }}

```

Additional filters are available:

Parameter	Value	Description	Parameter Type	Data Type
country_name	<input type="text"/>	Country name	query	string
dnis	<input type="text" value="39"/>	DNIS	query	string
first_rec	<input type="text"/>	Pagination: first record	query	integer
forced_text	<input type="text"/>	Show packages with forced message text (1 - show)	query	integer
mccmnc	<input type="text"/>	MCC MNC	query	string
min_included_sms_count	<input type="text" value="1"/>	Minimum included SMS count	query	integer
orderby_clause	<input type="text" value="1,2,3,8,9"/>	Sort expression: list of column numbers separated by comma (1 - id, 2 - pack_name, 3 - pack_descr, 4 - subscription_cost, 5 - currency_code, 6 - included_sms_count, 7 - priority, 8 - start_date, 9 - end_date, 10 - subscr_cnt, 11 - forced_text, 12 - vat, 13 - car_ids, 14 - pack_cc_id)	query	string
rec_count	<input type="text" value="2"/>	Pagination: maximum number of records	query	integer
show_all	<input type="text"/>	Show all packages in database (for System Owner users only)	query	integer

Filters

country_name: the exact name of the country for one of the pack's MCCMNC in accordance with the e.212/e.164 reference book

dnis: active dial code for one of the pack's MCCMNC in accordance with the e.212/e.164 reference book

first_rec: first record (for example, if set to 10, the first 9 records will not be shown and the info will be shown starting from the 10th row)

im_channel: IM channel ID

mccmnc: MCC/MCCMNC belongs to the pack

min_included_sms_count: minimum number of messages included in the pack

orderby_clause: list of column numbers separated by comma

rec_count: maximum number of records (for example, if set to 2, 2 records will be shown. If *first_rec* set to 10 and *rec_count* set to 2, 10th and 11th rows will be shown).

show_all: if set to 1, all packages in database will be shown (for System Owner users only).

To use the method, no additional permission is required.

Method **POST:sms_pack** can be used to create an SMS pack. The obligatory fields are *currency_code*, *start_date*, *end_date*, *included_sms_count*, *name* and *subscription_cost*:

```
{  
  "currency_code": "EUR",  
  "start_date": "2018.01.01",  
  "end_date": "2100.01.01",  
  "included_sms_count": 5,  
  "name": "test pack",  
  "subscription_cost": 1  
}
```

If the inserted *currency_code* does not exist in the *Currency exchange rates* interface or *end_date* is less than *start_date*, *subscription_cost* is negative or *name* is longer than 100 symbols, a corresponding warning will be shown.

The successful response contains the pack ID. Note: for pack creation the user must have the permission *SMS packs management* granted, otherwise an error will be given:

```
{ "error_message": "No permission SMS packs management granted"}
```

The parameter *car_ids* can be specified as the *Carriers* filter (to which carriers the pack will be available). Multiple comma-separated values are possible, e.g.:

```
"car_ids": "5680,7075"
```

The currency of the carrier's accounts must be the same as the pack currency to successfully apply the pack. For example, if the pack currency is EUR and the accounts' currencies of carrier IDs 5680 and 7075 are USD and EUR correspondingly, the pack will be created with included carrier ID 7075 only.

cURL example is:

```
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOi' -d '{
```

```
  "currency_code": "EUR",  
  "start_date": "2018.01.01",
```

```
"end_date": "2100.01.01",
"included_sms_count": 5,
"name": "test pack",
"subscription_cost": 1
}' 'https://test.api.com/rest/sms_pack{592}'
```

DELETE:sms_pack allows removing a pack based on the inserted ID. If the pack with the specified ID does not exist, a warning will be shown:

```
{ "error_message": "No rows were really affected: object access is restricted or it has already been deleted"}
```

Additionally the user must have the permission *SMS packs management* granted to delete packs, otherwise the following error will be given:

```
{ "error_message": "No permission SMS packs management granted"}
```

cURL example is:

```
curl -X DELETE --header 'Accept: application/json' --header 'Authorization: Bearer eyJhbGciOi'
```

```
'https://test.api.com/rest/sms_pack/3257'
```

23.5.3.6 sms_pack_content

To check MCCMNCs assigned to the existing packs, it is possible to use the **GET:sms_pack_content** method. The obligatory parameter is *pack_id*. The method is operating without any dedicated permission.

The response will be as follows:

```
[[
  "id": 4186,
  "pack_id": 728,
  "mcc_mnc": "222"
},
{
  "id": 4187,
  "pack_id": 728,
  "mcc_mnc": "222222"
}]
```

where ID is the record ID in the database. This ID can be used in the method **GET:sms_pack_content{id}** to receive the following info:

```
{  
  "id": 4186,  
  "pack_id": 728,  
  "mcc_mnc": "222"  
}
```

Note that if a pack does not contain any MCC/MCCMNC attached to the pack, an empty result will be returned. Adding a new record is possible using the method **POST:sms_pack_content**. The obligatory parameters are:

```
{  
  "pack_id": 3160,  
  "mcc_mnc": "250"  
}
```

country_dial_code can be specified as an additional parameter.

Note that the permission *SMS packs management* must be granted. **VPD restricted.**

A new MCCMNC can be added to the pack if all the conditions are followed:

- inserted pack ID must exist
- MCC/MCCMNC must contains 3 or 6 digits
- the pack cannot have subscribers
- MCCMNC or dial code+MCCMNC are not yet present in the pack.

Data can be modified through the **PUT:sms_pack_content** method. Note that the permission *SMS packs management* must be granted. **VPD restricted.**

23.5.3.7 sms_campaign

The method **GET:sms_campaign** shows a list of sent campaigns. To use the method, no additional permission is required.

Example of the response is:

```
[{  
  "id": 1645,  
  "sender_name": "qwerty",  
  "template_content": "Give me all your money",  
  "created": "2019.07.14 23:10:15",  
  "last_updated_by": "2019.07.15 00:42:57",  
  "status_id": 0,  
  "schedule": "2019.07.14 23:09:00",  
  "last_exec_date": "2019.07.15 00:42:57",
```

```
"contact_count": 312,  
"sent_cnt": 0,  
"rejected_cnt": 312,  
"acc_id": 10053,  
"campaign_descr": "SuperChamp",  
"alert_emails": "tansy@mail.ru,bobby@gmail.com,simba@aol.com",  
"finish_date": "2019.07.15 00:43:03",  
"failure_alert_threshold": 2  
}  
]
```

where *status_id* has one of the following values:

- 0 - completed
- 1 - scheduled
- 2 - failed
- 3 - canceled
- 4 - in progress
- 5 - paused

The same information can be checked through the method **GET:sms_camp_status** as well.

Sending a campaign is possible through the **POST:sms_campaign** method. To use the method, no additional permission is required.

Mandatory parameters are:

```
{  
"acc_id": 15112,  
"captcha": "string",  
"schedule": "2019.07.31",  
"sender_name": "FB",  
"template_content": "message text",  
"tag_ids": "278753,278754"  
}
```

where

captcha can be received through the **GET:captcha** method (*test.api.com/rest/captcha*);

schedule is the date when the campaign is sent (if it is set as a past date, campaigns will be started immediately; if it is set as a future date, the campaign will be scheduled to the date in question); *tag_ids* - comma-separated IDs of tags created in the Campaign Portal. ID can be found with help of the **GET:tag** method.

If either *acc_id* does not belong to the user's account, or *tag_ids* doesn't exist, or *tag_ids* does not contain any contact under it, a corresponding warning will be shown.

Possible values for *message_split_mode* are: *split*, *split_sar*, *payload*, *cut*. If the option is not set, the default value from the System setting *Default long message split mode*. *Allowed values: split, split_sar, payload, cut* is used. If the mode is set incorrectly, the corresponding error will be given.

template_id is an ID of content template created in the campaign portal (*Templates* page) - ID can be located through the method *sms_template*. If a non-existent ID is used, a warning is shown.

excluded_contact_ids is a list of comma-separated contact IDs under a tag. IDs can be fetched from **GET:contact** method. The parameter can come handy if a campaign should be sent to 100 contacts (destination addresses) which are united under one tag and some of them must be excluded. For example, **GET:contact** gives the following result:

```
[{
  "id": 18139438,
  "tag_ids": "278754",
  "phone": "1234567",
  "blacklisted": 0
},
.....
{
  "id": 18139440,
  "tag_ids": "278754",
  "phone": "7905",
  "blacklisted": 0
}]
```

and phone number 1234567 should be excluded - then **POST:sms_campaign** has to contain the following row:

```
"excluded_contact_ids": "18139438",
```

To send a campaign through IM services, the following parameters can be used:

im_channels: list of IM channels (comma-separated) that will be used in succession (in case one of them fails) for sending a message. Example: *"viber,sms"*. The values are case-insensitive, i.e., VIBER, viber, viBer are treated as the same value. If IM channel name is written incorrectly, the SMS switch will send the message to the next-in-line channel if any. If the parameter is specified with no value, it is considered *sms*. Note that to enable fallback to SMS, it is possible to add *sms* after preferable IM channels.

im_ttls: message time-to-live list (several values must be set separated by comma) specified in seconds for each service. This value is proxied to the service in order to ensure message delivery within expected timeframe. The order of IM channels is defined by the *im_channels* parameter. If no TTL is set, the default value configured in the *IM channels* page of the main web interface is taken. Example: "3,10"

im_message: message text that will be sent through IM providers. If empty, *template_content* value will be used.

If a message is sent through a regular SMS channel, the *template_content* is used as the message text

The parameters below can be used for sending *promotional* messages through *viber* - note that they are ignored when a message is sent through other IM channels.

image_url: link to the button image for buttons sent in the message

button_action_url: link to the website where the user will be redirected after clicking the button

button_caption: button caption

Note that the IM provider names are hardcoded and the possible values for the *im_channels* parameter can be reviewed through the *GET:im_channel* method (*im_channel_name* parameter). The current subscription to IM channels can be checked through the *GET:available_im_channels* method.

If a campaign has been successfully sent, its ID will be returned in the response.

Modifying campaign parameters is possible through *PUT:sms_campaign* method - no additional permission should be granted to use the method as well.

Deleting a campaign is possible through the *DELETE:sms_campaign* method - no additional permission is required to use the method.

23.5.3.8 sms_sender

The method *GET:sms_sender* allows a user to manage templates of sender IDs created in the campaign portal (*Templates* page). No additional permission is required for management of the templates.

23.5.3.9 sms_campaign_stats

Method *GET:sms_campaign_stats* allows checking the stats of sent campaigns.

If *end_date* is not set, it will be set to the current timestamp. Note that if a campaign has been scheduled in the past (e.g., today's date is 2019/01/01 and the *schedule* was set as 2018.12.31 00:00:00), *end_date* will be in the past as well (for example - 2018.12.31). If the filter *campaign_id* is not set, the statistics for all campaigns sent within the mentioned period will be shown.

Response example is:

```
[{
  "dcheck": "2019.08.01 23:36:00",
  "total": 10,
  "sent": 10,
  "delivrd": 5,
  "cost": 2.1
},
```

```
{
  "dcheck": "2019.08.01 23:37:00",
  "total": 200,
  "sent": 0,
  "delivrd": 0,
  "cost": 0
},
```

.....

```
{
  "dcheck": "2019.08.01 23:38:00",
  "total": 60,
  "sent": 60,
  "delivrd": 60,
  "cost": 1.1
}}
```

23.5.3.10 edr

The method **GET:edr** will show messages sent from the campaign portal. Obligatory parameters are *start_date* and *end_date*. If an incorrect date format is specified, a corresponding error will be shown, for example:

```
{ "error_message": "start_date: value 2019.29.07 00:00:00 is not valid datetime"}
```

Note that the user will be able to retrieve only those EDRs that belong to the user's carrier/products.

The response body will be as follows:

```
[{
  "edr_id": 11745613,
  "edr_date": "2019.04.03 17:06:24",
  "edr_status": "NOT ACCEPTED",
  "edr_is_successful": 0,
  "message_id": "767d2c8c-e8a3-4ebe-80a7-fc747d286f4c",
  "dnis": "593939197379",
  "ani": "qwerty",
  "message_text": "Give me all your money",
  "sender_acc_id": 10053,
  "campaign_id": 1598,
```

```
"ext_info": "Rate not found for accountId:10053; mccmnc:740001; dnis:593939197379",
"reason_code": 402,
"segment_num": 1
"im_channel": "sms"
},
.....
{
"edr_id": 11745610,
"edr_date": "2019.04.03 17:06:24",
"edr_status": "DELIVRD",
"edr_is_successful": 1,
"message_id": "60d4fb95-fed0-49a8-b997-3f9d640f8f4b",
"dnis": "593939004819",
"ani": "qwerty",
"message_text": "blablabla",
"sender_acc_id": 10053,
"campaign_id": 1598,
"reason_code": 200,
"segment_num": 1,
"mccmnc": "250",
"rate": 0.01
}}
```

23.5.4 Message sending

23.5.4.1 send_sms

Sending single messages is possible using the **POST:send_sms** method. No specific permissions are required. The method does not support Basic authorization.

For example, to send a message from Facebook sender to 79103407165 with test text the following obligatory parameters must be filled in:

Parameter	Value	Description	Parameter Type	Data Type
acc_id	<input type="text" value="15081"/>	Account ID (for trusted connection only)	query	integer
button_action_url	<input type="text"/>	Button action url for Viber IM	query	string
button_caption	<input type="text"/>	Button caption for Viber IM	query	string
campaign_id	<input type="text"/>	Campaign ID	query	integer
from	<input type="text" value="Facebook"/>	From	query	string
im_channels	<input type="text"/>	IM channels list (comma separated, priority order)	query	string
im_message	<input type="text"/>	IM message	query	string
im_ttls	<input type="text"/>	Ttls list for IM channels (comma separated, order according to im_channels parameter)	query	string
image_url	<input type="text"/>	Button caption image url for Viber IM	query	string
message	<input type="text" value="test"/>	SMS message	query	string
message_split_mode	<input type="text"/>	Message split mode: split, split_sar, payload, cut (default value is specified in system settings parameter "Default long message split mode")	query	string
password	<input type="text"/>	Connection authorization password	query	string
to	<input type="text" value="79103407165"/>	Subscriber's phone number. Several phone numbers can be used (separated by comma)	query	string
username	<input type="text"/>	Connection authorization	query	string

Message sending

The *To* field can contain up to 100 destination addresses separated by comma, for example:

```
79103407165,79103407166,79103407167,79103407168,79103407169
```

To assign a sent message to a campaign, the campaign ID must be specified in *campaign_field*. To use IM channels for message sending, corresponding parameters *im_channels*, *im_message*, *im_ttls* should be specified - additional parameters *button_action_url*, *button_caption*, *image_url* can be set so as to send a message through a Viber promotional channel (if available and enabled).

Note that either *acc_id* or *username* and *password* must be specified (in the latter case, the username and password must be taken from the *API connections* tab). If no connection is created it is also allowed to specify the account ID - note that this entity must be a retail one (created either during the user's registration in the campaign portal or automatically from the main interface by clicking the *Create Campaign Portal client* button). Additionally, routing rules must be configured to allow successful termination of a message - for example, if there is no applied rate plan or active pack subscription, the *Response body* will be as follows:

```
{ "error_message": "Rate not found for accountId:15081; mccmnc:250001; dnis:79103407165"}
```


totalCount - attempts.

To show additional info such as message ID, destination number, number of segments and HTTP status, *show_details* must be specified as 1. The *Response body* will be:

```
{
  "sentCount": 2,
  "rejectedCount": 2,
  "totalCount": 4,
  "details": [
    {
      "message_id": "9d701059-4570-40f6-87bb-c8a4fdef3616",
      "dnis": "79103407165",
      "segment_num": 1,
      "http_status": 500
    },
    {
      "message_id": "test34-20190719165631320270-d47075",
      "dnis": "79103407166",
      "segment_num": 1,
      "http_status": 200
    },
    {
      "message_id": "test34-20190719165631320343-3b93ba",
      "dnis": "79103407167",
      "segment_num": 1,
      "http_status": 200
    },
    {
      "message_id": "0232f882-8004-462b-95f6-ddfc685f72dc",
      "dnis": "79103407169",
      "segment_num": 1,
      "http_status": 500
    }
  ]
}
```

cURL example:

```
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' -d '[  
  {"from": "ANI1", "to": "79103407165", "message": "Hello world1"},  
  {"from": "ANI4", "to": "79103407166,79103407167", "message": "Hello world2"},  
  {"from": "ANI2", "to": "79103407169", "message": "Hello world3"}  
' https://test.api.com/605/rest/bulk\_send\_sms?acc\_id=15112&show\_details=1
```

24 Appendix 10. Data coding schemes

24.1 Overview of data coding schemes

The data coding scheme (DCS) indicates information that includes the character set that the message text is encoded in. Each data coding scheme contains its own set of characters. Some symbols can be absent from a particular DC while present in another. This is why it is very important for a client to choose correct data coding and encode symbols in accordance with the character set table - and for the System owner to configure everything properly in the System.

Several data coding schemes are supported, the list can be found either in the Allowed data coding list parameter ([Carriers\SMS channels](#)^[120]) or below:

- 0: *GSM 7-bit Default Alphabet (GSM 03.38)*

A special 7-bit encoding that was designed for the Short Message System (SMS) in GSM. The alphabet contains the most-often used symbols from English and a number of Western European languages. The character set table can be found in section [GSM 7-bit](#)^[61] below. The *GSM 7-bit Default Alphabet* encoding is used as the 0 encoding by default, but the user can select any data coding to be used as the 0 encoding in the *Default data coding schemes* field ([Carriers\SMS channels](#)^[120])

- 1: *IA5 (CCITT T.50)/ASCII (ANSI X3.4)*

ASCII (American Standard Code for Information Interchange) defines the 7-bit characters (but encoded in an 8-bit octet).

- 2: *Octet unspecified (8-bit binary)*

The DC suitable for binary messages. In GSM networks a character coded with 7 bits.

- 3: *Latin 1 (ISO-8859-1)*

An 8-bit character set that represents the alphabets of Western European languages. The character set table can be found in section [Latin-1](#)^[61] below.

- 4: *Octet unspecified (8-bit binary)*

The same as 2: Octet unspecified (8-bit binary) with the exception of encoding a symbol with 8 bits (applicable to GSM).

- 5: *JIS (X 0208-1990)*

A 2-byte character set specified as a Japanese Industrial Standard.

- 6: *Cyrillic (ISO-8859-5)*

An 8-bit character set that represents the Cyrillic symbols.

- 7: *Latin/Hebrew (ISO-8859-8)*

An 8-bit character set that represents the Hebrew letters.

- 8: *UCS2 (ISO/IEC-10646)*

The Universal Coded Character Set (UCS2, also known as UTF-16) is a standard set of characters coded with 2 bytes.

- 9: *Pictogram Encoding*

The DC suitable for pictogram (icon charts, picture charts) encoding.

- 10: *ISO-2022-JP (Music Codes)*

The DC suitable for Japanese symbols and music codes.

- 13: Extended Kanji JIS (X 0212-1990)

Extended version of JIS DC.

- 14: KS C 5601

A 2-byte South Korean coded character set standard to represent hangul and hanja characters.

24.2 The System configuration

The configuration can be applied in the [Carriers\SMS channels](#)^[120] interface.

For the client side it is possible to define which data coding will be considered a default one (when a *submit_sm* with *data_coding=0* is received). By default GSM 7-bit is supposed to be used when *data_coding=0* is sent, but it is still preferable to agree on this parameter with clients in order to avoid discrepancies. In case of any issue with text delivery, the DC which applied when the parameter is set to 0 must be confirmed with the client. The DC can be selected in the *Default data coding scheme* parameter.

Suppose the agreement with a client is to use GSM 7-bit as the default DC, so GSM 7-bit must be specified in the *Default data coding scheme* parameter ([Carriers\SMS channels](#)^[120], see figure below), and the client must encode symbols according to the [GSM 7-bit table](#)^[61] if the *data_coding* is set as 0 while a message is sent. If the client's default data coding differs from the vendor's one, the *data_coding* parameter received from the client will be changed when the message is sent to the vendor (for example, *data_coding=0* translates to *data_coding=1*).

Limitations

Reject too long messages

Client capacity (sms/sec):

Client overflow buffer size:

Default data coding scheme:

Default data coding scheme

Additional fields can be configured for the vendor side. The *Allowed data coding list* serves to specify a list of DCs that can be sent to the provider. Note if 0 is selected in the list, it refers to the data coding set in the *Default data coding scheme* parameter. For example if *Default data coding scheme = Latin1*, the *Allowed data coding list: 0, 1* allows both ASCII (DC 1) and Latin1 (the default 0 scheme).

If a message is encoded in the data coding that is not allowed in the list, there will be no attempt of sending the message through the vendor's channel and EDR with the internal status INCOMPATIBLE DATA CODING will be generated. The parameter can come handy when a vendor cannot deliver messages in a specific data coding - for example, in UCS2.

However, in some cases if a vendor restricts some DCs but the route is still preferred for use (for example, it provides an optimal price or it is the only route to a network), the *Transcode messages in unsupported encodings* can be set to either to the *Only lossless transcoding to* or the *Force transcoding to*:

- *Only lossless transcoding to*: allows transcoding the message whose data coding is not included in the *Allowed data coding list*. The transcoding can be selected in the drop-down list that appears. Furthermore, the SMS switch has an internal configuration file that contains translation rules for the symbols not available in the target encoding (for example, it is possible to replace Ö by O). But a message is rejected if no suitable symbol-based translation rule is found in the file.

- *Force transcoding to*: same as *Only lossless transcoding to*, except that symbols not found in the target encoding are replaced with question marks.

Let us consider scenarios of how each mode can work. Suppose a client is sending a message in GSM 7-bit (`data_coding=0`):

- If the *No transcoding* mode is set while the vendor's *Default data coding scheme* doesn't coincide with the client's *Default data coding scheme* and the received client's submit has `data_coding=0`, the message will be rejected with INCOMPATIBLE DATA CODING internal status. E.g., the message will be rejected in the following conditions: the client's *Default data coding scheme* is GSM7bit while the vendor's one is Latin1 and a submit_sm with the `data_coding=0` is sent.

If both *Default data coding scheme* parameters (for the client and vendor channels) match when the initial `data_coding` is 0 and the data coding (GSM7bit for this example) is added to the vendor's *Allowed data coding list*, the message will be sent through the vendor.

If the initial `data_coding` is different from 0 (for example, `data_coding=3`), this datacoding must be selected in the vendor's *Allowed data coding list* for the message to be sent to the vendor provided that the *No transcoding* mode is selected.

- If the incoming DC is not allowed while the *Transcode messages in unsupported encodings* is set to *Only lossless transcoding to: ASCII* and ASCII is the only allowed DC, the internal character translation file is checked. Suppose that the only symbol that is not presented in ASCII DC is `ü`. If the internal configuration file contains a translation rule (for example, `ü` must be translated to `u` which is in ASCII), the message text will be translated accordingly. If a rule for the symbol is not found, the message will be rejected with DATA_CODING_FAILED internal status.

If the incoming DC is 0 while the vendor's *Default data coding scheme* is other than 0, there will be an attempt to transcode the message provided that the data coding set in the *Transcode messages in unsupported encodings* either has been added to the *Allowed data coding list* or has been set as the *Default data coding scheme* and the 0 data coding was allowed.

NOTE: if the internal configuration file contains transcoding rules, it can be applied when *Force transcoding to mode* is selected in the channel as well (provided that the channel ID has been added to the file and the initial DC coincides the one set in the file for the channel).

If a symbol is available in both data codings (the original and the target ones), the character translation rules may not be defined. However, once the message text is transcoded and if the number of symbols exceeded the maximum allowed number of symbols of the target data coding, the message will be rejected with MESSAGE ENCODING FAILED internal status. For example, if the message length is 100 symbols in ASCII - once it is transcoded to UCS2, the max length (70 symbols) is exceeded.

NOTE: if the vendor's *Default data coding scheme* is other than 0 and the same data coding is both allowed and set as the transcoding value, the data coding value (not the default 0 value) will be sent to the vendor if the message has been successfully transcoded. For example, the *Default data coding scheme* = 1, the DC is added to the *Allowed data coding list* and specified in the *Transcode messages in unsupported encodings* - when a submit in an unsupported DC is received (`data_coding=0` for this example), the text will be transcoded and a submit with `data_coding=1` will be sent to the vendor.

- If the DC is not allowed while the *Transcode messages in unsupported encodings* is set to *Force transcoding to*, the message will be sent through the channel with `ü` replaced by ?

24.3 How to calculate the allowed number of symbols

If a message is sent over SMPP, its text is passed in the *message* field which can take up to 254 bytes by the standard. But since the field cannot be fully occupied with the message text (the field can also contain service information), only 140 bytes are allocated for the text. This limitation has come from the GSM standards. If a longer text must still be sent within one message, the optional parameter *message_payload* of the *submit_sm* packet can be used since it can contain up to 4 kilobytes of data.

In this way, the allowed number of symbols for one message if it is encoded with GSM 7-bit can be calculated as: $(140 \text{ bytes} * 8 \text{ bits}) / 7 \text{ bits} = 160$ characters. 8 bits are used since even if a character 'weighs' 7 bits, it still occupies an octet (8 bits).

The same logic of calculation applied to other data codings - take UCS2 as another example. Since every character is a 16-bit one, the formula will be $(140 \text{ bytes} * 8) / 16 \text{ bits} = 70$ characters. It means that only up to 70 characters can be sent within one unicode message.

As for other 8-bit data codings (e.g., Latin-1, ASCII), it is calculated as $(140 \text{ bytes} * 8) / 8 \text{ bits} = 140$ characters.

Messages that exceed the allowed number of characters must be split to separate parts (a concatenated message) from partner side (since the SMS switch does not separate them) and linked together with the help of UDH (user data header). Note that UDH reduces the allowed number of characters since it requires 6 bytes (48 bits). So for GSM 7bit (7-bit data coding), 153 symbols are allowed to be sent: $((140 \text{ bytes} - 6 \text{ bytes}) * 8) / 7 \text{ bits} = 153$ characters. For 8-bit data codings the calculation is $((140 \text{ bytes} - 6 \text{ bytes}) * 8) / 8 \text{ bits} = 134$ characters; for 16-bit ones: $((140 \text{ bytes} - 6 \text{ bytes}) * 8) / 16 \text{ bits} = 67$ characters.

If a long message is sent over SMPP, it is the client's responsibility to separate it since the SMS switch will proxy it to the vendor as is. If a client does not follow the SMPP specification, the checkbox *Reject too long messages* can be selected ([Carriers\SMS channels](#)^[99]) so non-split long messages will be rejected with the INCORRECT MESSAGE LENGTH internal status. By default a message is considered long if the following number of characters is exceeded:

- for DCs 0; 1; 3: 160 symbols
- for DCs 2; 4; 5; 6; 7: 140 symbols
- for DC 8: 70 symbols

The thresholds can be changed with the help of the technical support team. The thresholds set limitations for the *Reject too long messages* if enabled and calculation of segments if a long text is received in the *message_payload* field. For example, if a 156-symbol text is sent in the *message_payload* field in UCS2, it will be split into 3 segments. If the *SMS billing option* ([Carriers\Products](#)^[103]) is set to *Bill by segments*, the client will be billed for each segment - in sum, 3 times for the message.

24.4 Data coding in SMPP

The data coding scheme that will be applied for message encode/decode is sent in the *submit_sm* packet in the *data_coding* parameter.

The parameter is presented as an octet and may also contain the message class that allows sending a flash or a silent message, as an example. A flash message is a message that is shown on an end user device display but is not stored in its memory. A silent message is a message that arrives to an end user device with no sound or notification.

The last 4 bits specify the data coding scheme itself; the fourth bit stands for flash messages (0 - regular message, 1 - flash message); the third bit is a reserved one (is equal to 0); the first two show if the message is silent (00 - regular message, 11 - silent message).

Below are some examples:

Bits	Dec	Hex	Meaning
0 0 0 0 0 0 0 0	0	0	SMSC Default Alphabet
0 0 0 0 0 0 0 1	1	1	IA5 (CCITT T.50)/ASCII (ANSI X3.4)
0 0 0 0 0 0 1 0	2	2	Octet unspecified (8-bit binary)
0 0 0 0 0 0 1 1	3	3	Latin 1 (ISO-8859-1)
0 0 0 0 0 1 0 0	4	4	Octet unspecified (8-bit binary)
0 0 0 0 0 1 0 1	5	5	JIS (X 0208-1990)
0 0 0 0 0 1 1 0	6	6	Cyrillic (ISO-8859-5)
0 0 0 0 1 0 0 0	8	8	UCS2 (ISO/IEC-10646)
1 1 0 0 0 0 0 0	192	C0	Silent message in GSM 7-bit DC
1 1 0 0 0 1 1 0	198	C6	Silent message in Cyrillic DC
1 1 0 1 0 0 0 0	208	D0	Silent flash message in GSM 7-bit DC
0 0 0 1 1 0 0 0	24	18	Flash unicode message

24.5 Data coding in HTTP

Messages in HTTP are sent using a [link](#) ^[420] where the appropriate *dataCoding* parameter can be specified.

By default the SMS switch does not require specification of this parameter and defines the message data coding as GSM 7-bit if the message text contains symbols that are all present in the GSM 7-bit table. Otherwise it is defined as UCS2.

For example, if a message with text *Hello★* is sent to the SMS switch with no *dataCoding* parameter specified, the switch will process a message as a message in UCS2 data coding since the ★ symbol is not present in GSM 7-bit table.

Note that the message text - that is sent in the *message* field - must be [URL encoded](#) but the text length is calculated after the message text is URL decoded. For example, the text *Hello, how are you* (which is 18 symbols long) is URL encoded as *Hello%2C%20how%20are%20you* (26 symbols) - the text length is 18 symbols and not 26 symbols.

Since there is no restriction for the field while the GSM standards must be complied with, there is the *longMessageMode* parameter which determines the way of processing long messages. If the parameter is not set, it is considered *cut* - so it is possible to send up to 160 symbols in GSM 7-bit DC and only 70 in UCS2 (the rest of a long message will be trimmed).

To send a long message as one, the *payload* mode can be used so the message will be sent in the *message_payload* field.

To break a long message into several segments over HTTP is possible using either the *split* or *split_sar* mode (the difference between them is in the employed header: for *split* it is the UDH header, for *split_sar* it is SAR. The number of symbols per segment depends on the DC:

- *dataCoding*=0, 1 or 3: one message can contain up to 160 symbols, if more:

segment count = message length/153

- *dataCoding*=2 or 4-7: one message can contain up to 140 symbols, if more:

segment count = message length/134

- *dataCoding*=8: one message can contain up to 70 symbols, if more:

segment count = message length/67

24.6 DCS tables

The data coding is a table with a limited number of characters, where each character has its own code. A single character can have different codes in different data codings. The SMS switch receives the message text that is already encoded and processes it based on both the client and the vendor channels' settings. If no transcoding mode is set in the vendor channel, the text is sent as is.

The most common character sets are represented below.

24.6.1 GSM 7-bit

Character		GSM 7-bit (Decimal)	GSM 7-bit (Hexadecimal)
@	At sign	0	00
£	Pound sign	1	01
\$	Dollar sign	2	02
¥	Yuan/Yen sign	3	03
€	Euro sign	27 101	1B65
è	Small letter e with grave accent	4	04
é	Small letter e with acute accent	5	05
ù	Small letter u with grave accent	6	06
ì	Small letter i with grave accent	7	07
ò	Small letter o with grave accent	8	08
Ç	Capital letter C with cedilla	9	09

Appendix 10. Data coding schemes

Character		GSM 7-bit (Decimal)	GSM 7-bit (Hexadecimal)
	Linefeed	10	0A
Ø	Capital letter O with stroke	11	0B
ø	Small letter o with stroke	12	0C
	Carriage return	13	0D
Å	Capital letter A with ring	14	0E
å	Small letter a with ring	15	0F
Δ	Capital letter Greek delta	16	10
_	Underscore	17	11
Φ	Capital letter Greek phi	18	12
Γ	Capital letter Greek gamma	19	13
Λ	Capital letter Greek lambda	20	14
Ω	Capital letter Greek omega	21	15
Π	Capital letter Greek pi	22	16
Ψ	Capital letter Greek psi	23	17
Σ	Capital letter Greek sigma	24	18
Θ	Capital letter Greek theta	25	19
Ξ	Capital letter Greek xi	26	1A
	Escape	27	1B
	Form feed	27 10	1B0A
^	Caret / Circumflex	27 20	1B14
{	Left curly bracket	27 40	1B28
}	Right curly bracket	27 41	1B29

Character		GSM 7-bit (Decimal)	GSM 7-bit (Hexadecimal)
\	Backslash	27 47	1B2F
[	Left square bracket	27 60	1B3C
~	Tilde	27 61	1B3D
]	Right square bracket	27 62	1B3E
Æ	Capital letter AE	28	1C
æ	Small letter ae	29	1D
ß	Small letter German Eszett	30	1E
É	Capital letter E with acute accent	31	1F
	Space	32	20
!	Exclamation mark	33	21
"	Quotation mark	34	22
#	Number sign	35	23
¤	Currency sign	36	24
%	Percent sign	37	25
&	Ampersand	38	26
'	Apostrophe	39	27
(	Left parenthesis	40	28
)	Right parenthesis	41	29
*	Asterisk	42	2A
+	Plus sign	43	2B
,	Comma	44	2C

Character		GSM 7-bit (Decimal)	GSM 7-bit (Hexadecimal)
-	Minus sign / Hyphen	45	2D
.	Full stop / Period	46	2E
/	Slash	47	2F
0	Digit zero	48	30
1	Digit one	49	31
2	Digit two	50	32
3	Digit three	51	33
4	Digit four	52	34
5	Digit five	53	35
6	Digit six	54	36
7	Digit seven	55	37
8	Digit eight	56	38
9	Digit nine	57	39
:	Colon	58	3A
;	Semicolon	59	3B
<	Less-than sign	60	3C
=	Equals sign	61	3D
>	Greater-than sign	62	3E
?	Question mark	63	3F
!	Inverted exclamation mark	64	40
A	Capital letter A	65	41
B	Capital letter B	66	42

Character		GSM 7-bit (Decimal)	GSM 7-bit (Hexadecimal)
C	Capital letter C	67	43
D	Capital letter D	68	44
E	Capital letter E	69	45
F	Capital letter F	70	46
G	Capital letter G	71	47
H	Capital letter H	72	48
I	Capital letter I	73	49
J	Capital letter J	74	4A
K	Capital letter K	75	4B
L	Capital letter L	76	4C
M	Capital letter M	77	4D
N	Capital letter N	78	4E
O	Capital letter O	79	4F
P	Capital letter P	80	50
Q	Capital letter Q	81	51
R	Capital letter R	82	52
S	Capital letter S	83	53
T	Capital letter T	84	54
U	Capital letter U	85	55
V	Capital letter V	86	56
W	Capital letter W	87	57
X	Capital letter X	88	58

Character		GSM 7-bit (Decimal)	GSM 7-bit (Hexadecimal)
Y	Capital letter Y	89	59
Z	Capital letter Z	90	5A
Ä	Capital letter A with diaeresis	91	5B
Ö	Capital letter O with diaeresis	92	5C
Ñ	Capital letter N with tilde	93	5D
Ü	Capital letter U with diaeresis	94	5E
§	Section sign	95	5F
¿	Inverted question mark	96	60
a	Small letter a	97	61
b	Small letter b	98	62
c	Small letter c	99	63
d	Small letter d	100	64
e	Small letter e	101	65
f	Small letter f	102	66
g	Small letter g	103	67
h	Small letter h	104	68
i	Small letter i	105	69
j	Small letter j	106	6A
k	Small letter k	107	6B
l	Small letter l	108	6C
m	Small letter m	109	6D
n	Small letter n	110	6E

Character		GSM 7-bit (Decimal)	GSM 7-bit (Hexadecimal)
o	Small letter o	111	6F
p	Small letter p	112	70
q	Small letter q	113	71
r	Small letter r	114	72
s	Small letter s	115	73
t	Small letter t	116	74
u	Small letter u	117	75
v	Small letter v	118	76
w	Small letter w	119	77
x	Small letter x	120	78
y	Small letter y	121	79
z	Small letter z	122	7A
ä	Small letter a with diaeresis	123	7B
ö	Small letter o with diaeresis	124	7C
ñ	Small letter n with tilde	125	7D
ü	Small letter u with diaeresis	126	7E
à	Small letter a with grave accent	127	

24.6.2 Latin-1

Character		Latin 1 (Decimal)	Latin 1 (Hexadecimal)
@	At sign	64	40
£	Pound sign	163	A3

Character	Latin 1 (Decimal)	Latin 1 (Hexadecimal)
\$ Dollar sign	36	24
¥ Yuan/Yen sign	165	A5
è Small letter e with grave accent	232	E8
é Small letter e with acute accent	233	E9
ù Small letter u with grave accent	249	F9
ì Small letter i with grave accent	236	EC
ò Small letter o with grave accent	242	F2
Ç Capital letter C with cedilla	199	C7
Linefeed	10	0A
Ø Capital letter O with stroke	216	D8
ø Small letter o with stroke	248	F8
Carriage return	13	0D
Å Capital letter A with ring	197	C5
å Small letter a with ring	229	E5
– Underscore	95	5F
Form feed	12	0C
^ Caret / Circumflex	94	5E
{ Left curly bracket	123	7B
} Right curly bracket	125	7D
\ Backslash	92	5C
[Left square bracket	91	5B
~ Tilde	126	7E

Character	Latin 1 (Decimal)	Latin 1 (Hexadecimal)	
]	Right square bracket	93	5D
|	Vertical bar	124	7C
Æ	Capital letter AE	198	C6
æ	Small letter ae	230	E6
ß	Small letter German Eszett	223	DF
É	Capital letter E with acute accent	201	C9
	Space	32	20
!	Exclamation mark	33	21
"	Quotation mark	34	22
#	Number sign	35	23
¤	Currency sign	164	A4
%	Percent sign	37	25
&	Ampersand	38	26
'	Apostrophe	39	27
(	Left parenthesis	40	28
)	Right parenthesis	41	29
*	Asterisk	42	2A
+	Plus sign	43	2B
,	Comma	44	2C
-	Minus sign / Hyphen	45	2D
.	Full stop / Period	46	2E

	Character	Latin 1 (Decimal)	Latin 1 (Hexadecimal)
/	Slash	47	2F
0	Digit zero	48	30
1	Digit one	49	31
2	Digit two	50	32
3	Digit three	51	33
4	Digit four	52	34
5	Digit five	53	35
6	Digit six	54	36
7	Digit seven	55	37
8	Digit eight	56	38
9	Digit nine	57	39
:	Colon	58	3A
;	Semicolon	59	3B
<	Less-than sign	60	3C
=	Equals sign	61	3D
>	Greater-than sign	62	3E
?	Question mark	63	3F
¡	Inverted exclamation mark	161	A1
A	Capital letter A	65	41
B	Capital letter B	66	42
C	Capital letter C	67	43
D	Capital letter D	68	44

	Character	Latin 1 (Decimal)	Latin 1 (Hexadecimal)
E	Capital letter E	69	45
F	Capital letter F	70	46
G	Capital letter G	71	47
H	Capital letter H	72	48
I	Capital letter I	73	49
J	Capital letter J	74	4A
K	Capital letter K	75	4B
L	Capital letter L	76	4C
M	Capital letter M	77	4D
N	Capital letter N	78	4E
O	Capital letter O	79	4F
P	Capital letter P	80	50
Q	Capital letter Q	81	51
R	Capital letter R	82	52
S	Capital letter S	83	53
T	Capital letter T	84	54
U	Capital letter U	85	55
V	Capital letter V	86	56
W	Capital letter W	87	57
X	Capital letter X	88	58
Y	Capital letter Y	89	59
Z	Capital letter Z	90	5A

Character	Latin 1 (Decimal)	Latin 1 (Hexadecimal)
Ä Capital letter A with diaeresis	196	C4
Ö Capital letter O with diaeresis	214	D6
Ñ Capital letter N with tilde	209	D1
Ü Capital letter U with diaeresis	220	DC
§ Section sign	167	A7
¿ Inverted question mark	191	BF
a Small letter a	97	61
b Small letter b	98	62
c Small letter c	99	63
d Small letter d	100	64
e Small letter e	101	65
f Small letter f	102	66
g Small letter g	103	67
h Small letter h	104	68
i Small letter i	105	69
j Small letter j	106	6A
k Small letter k	107	6B
l Small letter l	108	6C
m Small letter m	109	6D
n Small letter n	110	6E
o Small letter o	111	6F
p Small letter p	112	70

Character	Latin 1 (Decimal)	Latin 1 (Hexadecimal)
q Small letter q	113	71
r Small letter r	114	72
s Small letter s	115	73
t Small letter t	116	74
u Small letter u	117	75
v Small letter v	118	76
w Small letter w	119	77
x Small letter x	120	78
y Small letter y	121	79
z Small letter z	122	7A
ä Small letter a with diaeresis	228	E4
ö Small letter o with diaeresis	246	F6
ñ Small letter n with tilde	241	F1
ü Small letter u with diaeresis	252	FC
à Small letter a with grave accent	224	E0

24.7 How to use the tables

Suppose that a client needs to send a message with text *Test* encoded in GSM 7-bit. For that, the client must match the letters of all words with the [GSM 7-bit table](#)^[617] and use their codes. Example, hexadecimal code 54 stands for T, 65 - for e, 73 - for s, 74 - for t. As a result, the following string must be sent as the text: 54657374

In such binary representation the text must be sent to the next-in-line equipment which, based on the *datacoding* parameter, will try to decode it and send further based on the provider's data coding settings.

24.8 How to troubleshoot data coding issues

If the message text is received incorrectly on the end-user device, first it is necessary to define if it was properly encoded and sent to the System, or if the vendor channel settings are not correct since the System does not transcode the text unless *Transcode messages in unsupported encodings* is specified.

Once there is the trace file which includes the *submit_sm* packet received from the client, open it and refer to the *data_coding* parameter. Note that [Wireshark](#) program shows message text in ASCII. However, using the *data_coding* and the DC tables it is possible to match characters and their codes. The received data coding parameter is also reflected in EDRs ([SMS\EDR management\EDR export tool](#)^[221] or [Reports\EDR Export \(SMS\)](#)^[193]). Currently, even if transcoding was applied, the initial DC will still be written to the EDR as the outgoing data coding.

If *submit_sm* is sent with *data_coding=0* (while the *Default data coding scheme* is set to *GSM 7-bit*), the message text can be found in the packet, and the match can be checked as follows (see the figure below): the symbol V has code 56 (in hex) in GSM 7-bit so the symbol has been encoded correctly. The rest of the symbols can be checked based on the same principle.

No.	Time	Source	Dest	Protocol	Length	Info
11	201...	163...	87...	SMPP	266	SMPP Submit_sm
75	201...	163...	87...	SMPP	347	SMPP Submit_sm
98	201...	163...	87...	SMPP	209	SMPP Submit_sm
164	201...	163...	87...	SMPP	679	SMPP Submit_sm
183	201...	163...	87...	SMPP	341	SMPP Submit_sm
186	201...	163...	87...	SMPP	209	SMPP Submit_sm
202	201...	163...	87...	SMPP	351	SMPP Submit_sm


```

> Frame 11: 266 bytes on wire (2128 bits), 266 bytes captured (2128 bits) on interface 0
> Linux cooked capture
> Internet Protocol Version 4, Src: 163.172.249.236, Dst: 87.110.233.210
> Transmission Control Protocol, Src Port: 11615, Dst Port: 2775, Seq: 17, Ack: 17, Len: 198
> Short Message Peer to Peer, Command: Submit_sm, Seq: 42555269, Len: 198
  Length: 198
  Operation: Submit_sm (0x00000004)
  Sequence #: 42555269
  Service type: (Default)
  Type of number (originator): Alphanumeric (0x05)
  Numbering plan indicator (originator): Unknown (0x00)
  Originator address: Verify
  Type of number (recipient): International (0x01)
  Numbering plan indicator (recipient): ISDN (E163/E164) (0x01)
  Recipient address: 36206273500
  ....00 = Messaging mode: Default SMSC mode (0x0)
  ..00 00.. = Message type: Default message type (0x0)
  00.. .... = GSM features: No specific features selected (0x0)
  Protocol id.: 0x00
  Priority level: GSM: None      ANSI-136: Bulk      IS-95: Normal (0x00)
  Scheduled delivery time: Immediate delivery
  Validity period: Nov 27, 2019 11:38:08.000000000 UTC
  ....01 = Delivery receipt: Delivery receipt requested (for success or failure) (0x1)
  ... 00.. = Message type: No recipient SME acknowledgement requested (0x0)
  ...0 .... = Intermediate notif: No intermediate notification requested (0x0)
  .....0 = Replace: Don't replace (0x0)
  > Data coding: 0x00
  Predefined message: 0
  Message length: 78
  Message: 38373231343020697320796f757220766572696669636174...
  > Optional parameters
  
```


0040	6b 30 16 f7 00 00 00 c6 00 00 00 04 00 00 00 00	k0.....
0050	02 89 57 85 00 05 00 56 65 72 69 66 79 00 01 01	..W... Verify. ..
0060	33 36 32 30 36 32 37 33 35 30 30 00 00 00 00 00	36206273 500.....
0070	31 39 31 31 32 37 31 31 33 38 30 38 30 30 30 2b	19112711 3808000+
0080	00 01 00 00 00 4e 38 37 32 31 34 30 20 69 73 20	.....N87 2140 is
0090	79 6f 75 72 20 76 65 72 69 66 69 63 61 74 69 6f	your ver ificatio

Checking the match

If *data_coding=8*, a character is encoded with 2 bytes - for example, an exclamation mark is encoded as 0021 (see figure below).

```

.... ..01 = Delivery receipt: Delivery receipt requested (for success or failure) (0x1)
.... 00.. = Message type: No recipient SME acknowledgement requested (0x0)
...0 .... = Intermediate notif: No intermediate notification requested (0x0)
0 = Replace: Don't replace (0x0)
> Data coding: 0x08
Undefined message: 0
Message length: 0
Optional parameters
  > Optional parameter: 0x1500 (0x1500): 3337303636333439393634
  > Optional parameter: 0x1501 (0x1501): 00001761
  > Optional parameter: 0x1502 (0x1502): 00000015
  > Optional parameter: 0x1503 (0x1503): 000011ef
  > Optional parameter: 0x1504 (0x1504): 3337303636333439393634
  > Optional parameter: message_payload (0x0424)
    Tag: 0x0424
    Length: 150
    Payload
00b0 11 ef 15 04 00 0b 33 37 30 36 36 33 34 39 39 36 .....37 06634996
00c0 34 04 24 00 96 00 4f 00 64 00 20 00 57 00 55 00 4.$.. .O. d. .W.U.
00d0 3a 00 4c 00 49 00 4c 00 49 00 41 00 20 00 4b 00 .:L.I.L. I.A. .K.
00e0 41 00 4d 00 49 00 5a 00 45 00 52 00 4b 00 4f 00 A.M.I.Z. E.R.K.O.
00f0 20 00 77 00 6c 00 61 00 73 00 6e 00 69 00 65 00 .w.l.a. s.n.i.e.
0100 20 00 6f 00 64 00 65 00 62 00 72 00 61 00 6c 00 .o.d.e. b.r.a.l.
0110 2f 00 61 00 20 00 54 00 77 00 6f 00 6a 00 20 00 /.a. .T. w.o.j. .
0120 70 00 72 00 7a 00 65 00 6b 00 61 00 7a 00 20 00 p.r.z.e. k.a.z. .
0130 70 00 69 00 65 00 6e 00 69 00 65 00 7a 00 6e 00 p.i.e.n. i.e.z.n.
0140 79 00 2e 00 20 00 44 00 7a 00 69 00 65 00 6b 00 y... .D. z.i.e.k.
0150 75 00 6a 00 65 00 6d 00 79 00 21 u.j.e.m. y
    
```

Exclamation mark encoding

25 Appendix 11. Instant Messaging: how it works

25.1 What is Instant Messaging?

IM stands for 'instant messaging' and offers real-time text transmission over the Internet. Its advantages over regular text messages (SMS) are as follows:

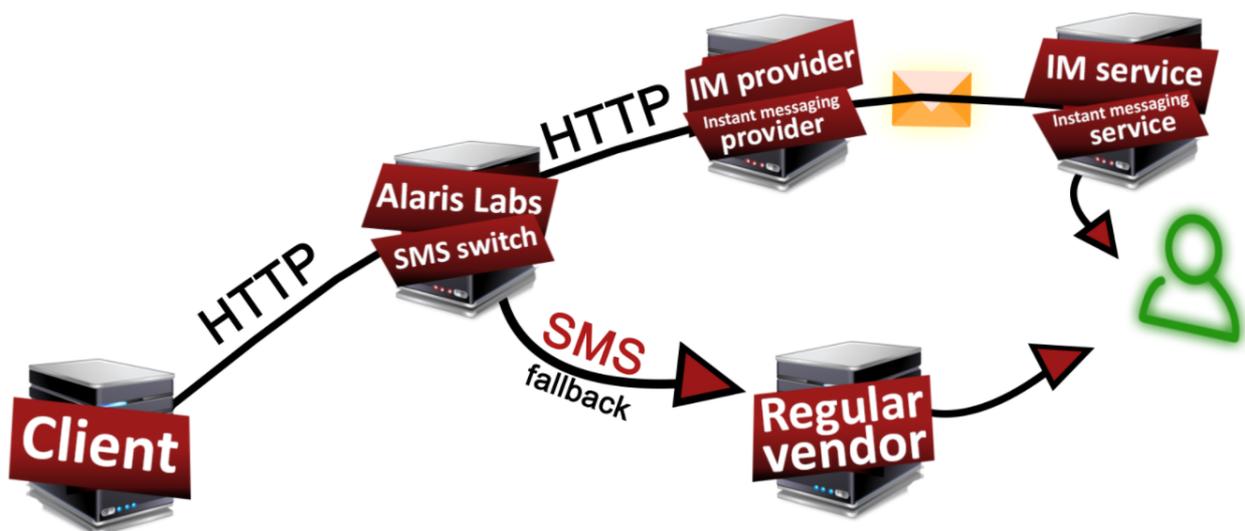
- real-time communication with a possibility of immediate receipt of acknowledgment or reply
- possibility to verify a user's status (offline/online)
- possibility to transmit video files and images
- less expensive than SMS

In terms of the System, instant messaging is configured using a dedicated product type which gives an opportunity to terminate messages over HTTP through partners that offer access to IM services.

NOTE: Alaris Labs does not provide direct connections to the IM operators. The System only offers a technical possibility of using such services while no contacts are provided by the Alaris team. Currently the System has full support of Viber and Whatsapp APIs.

The System makes it possible for the System owner to create several IM plans in order to send a message over multiple IM services in accordance with their priorities and order (until the message is sent successfully/the list of services is exhausted) and to have a regular SMS channel as a fallback (in case of unsuccessful submission). There is also a possibility to configure TTL (time-to-live) - the period within which the System will be waiting for a response before sending a request to the next-in-line service.

NOTE: It is possible to define the order of IM services/SMS fallback based on which the message will be sent out. However, the SMS service will be used in the end. No SMS fallback is enabled by default, therefore in order to use it, it must be specified while sending the message.



Instant messaging general layout

The figure above illustrates IM message sending. A client carrier connected to Alaris SMS Platform intends to send instant messages to a specific IM channel or service. In its turn, Alaris SMS Platform is connected to an IM provider that will be sending messages through a specific IM service.

This Appendix explains the basics of instant messaging - how messages are sent and how they are different from regular SMS, and how Alaris SMS Platform handles them. Finally, it shows how Alaris Campaign Portal users can benefit from them. You can also view the [tutorial](#) on instant messaging that explains how it works and how to configure the System to process IM.

25.2 Configuration of IM channels

25.2.1 General configuration

The System has a predefined list of IM services that can be found in [SMS\Reference books\IM channels](#)^[288]. Note that the default list is given as a reference and currently the System does not support all of their APIs. It is also possible to add a custom IM type that may serve as a fallback: for example, it may be a regular HTTP provider or a local IM service whose API can be added to the System. Once added, it must be configured appropriately (the IM client and vendor products for the service must be added as well as routing must be adjusted). As soon as it is configured, the IM channel can be selected as one of the services for message sending. See the details of the configuration below.

The [Reference books\Contract companies](#)^[163] page has the IM channels list that allows the System owner to select IM channels and make them available for a specific contract company. For example, if the Viber IM service is not selected for the Alaris contract company, carriers of this company will not be able to subscribe to a pack or IM plan created for the Viber service.

To terminate messages to IM services, corresponding entities must be created for the providers (the products must be of the IM type) as well as for clients - for example, to route a message to WhatsApp, the message must be received from a channel attached to a corresponding WhatsApp client product.

Products of the IM type can be created in the [Carriers\Products](#)^[103] tab as usual. The main distinctive feature of this type is that when it is selected, the *IM channel* field becomes available - it must be filled in with a specific IM service for which the product is created. Once Viber is selected as the IM channel, the *Product notes* must be set to one of the following values:

- *promotion* (regularly used for sending of advertising campaigns)
- *transaction* (for notifications in regard to the user's transactions)

As both services are supported by the System as well as both have different purposes and may have different pricing for message termination, a separate product can be created for each service.

NOTE: Several client POIs with the same service type can be created, which are associated with a single channel but different products. For example, if four products (regular SMS product, Viber promotion, Viber transaction and WhatsApp) have been created in the System, four POIs of the same service type (attached to separate products) can be created within a channel.

NOTE: General configuration except for product creation (i.e., creation of carrier, account, agreement, SMS channel, SMS POI and routing rules; uploading of rates) should be managed as usual.

25.2.2 Configuring IM for the Wholesale Portal

To enable IM messaging for the Wholesale Portal, proceed as follows:

1. Create an IM product for a specific IM channel
2. Add a client channel and POI attached to the product and channel

3. Create one product for each IM service that you plan to provide to the client (for example, if Viber transaction and WhatsApp services will be used by the customer, two corresponding products must be added along with corresponding channels and POIs)
4. If fallback is needed, add an SMS product for the client
5. Below is an example of a link that must be used by the client to send a message over IM services (once all vendor/routing configuration is complete) is as follows:

<http://<IP>:<port>/api?>

[ani=<ani>&dnis=<dnis>&username=<login>&password=<pass>&serviceType=<serviceType>&message=<text>&command=submit&im-channels=<imchannels>&im-message=<imtext>&im-ttl=<tvl>&message-purpose=<purpose>&image-url=<imageURL>&button-caption=<button>&button-action-url=<buttonURL>](http://<IP>:<port>/api?ani=<ani>&dnis=<dnis>&username=<login>&password=<pass>&serviceType=<serviceType>&message=<text>&command=submit&im-channels=<imchannels>&im-message=<imtext>&im-ttl=<tvl>&message-purpose=<purpose>&image-url=<imageURL>&button-caption=<button>&button-action-url=<buttonURL>)

where

<IP> must be replaced by the SMS switch IP

<port>: the switch port (by default it's 8001 for HTTP and 8002 for HTTPS)

<ani>: sender ID

<dnis>: destination address

<login>: channel login

<pass>: channel password

<serviceType>: POI service type

<message>: message text. Note that the text will be sent to SMS providers only (IM text is filled in a separate field)

<imchannels>: list of IM services; their sequence defines the order. For example, if the value is set as viber,whatsapp,sms, the Viber service will come first for message termination and SMS will be considered a fallback. If set as whatsapp, no fallback is expected. Note that even if sms is set ahead of an IM service, it will always be put to the end of the list automatically

<imtext>: message text that will be sent to IM providers

<tvl>: time to live for each service. If left empty, the default values defined in [SMS\Reference books\IM channels](#) [268] will be used. Example is: ..&im-ttl=30,50,70&..

<purpose>: applicable to Viber service only. Can be set either to transaction or promotion. If the purpose is not specified explicitly, it is assigned by the SMS switch: if button-caption or button-action-url parameter is specified in the link, the type is defined as promotion

<imageURL>: link to the button image. Applicable to Viber promotion service only

<button>: button text. Applicable to Viber promotion service only, cannot be specified with button-action-url absent

<buttonURL>: URL opened when clicking a button. Applicable to Viber promotion service only, cannot be specified with button-caption absent

It is also possible to use the viber_message_type parameter in the incoming request. The parameter values can be as follows:

6, 106, 206, 7, 107, 207, 8, 108, 208, 9, 109, 209, 210

which is based on the Viber HTTP API document. If the SMS switch receives a request with a value other than mentioned above, the message will be rejected. If no value is set, it is calculated by the SMS switch.

25.2.3 Configuring IM for the Campaign Portal

Configuration of instant messaging is similar to SMS: IM plans can be used along with IM packs and packs have priorities over rate plans. Regular SMS packs and plans will be used to terminate traffic if SMS channel is selected while sending a single message/launching a campaign.

25.2.3.1 IM plan

To create and enable the use of an IM plan proceed as follows:

1. Create a parent IM rate plan by creating a client product of IM type under the System owner carrier in the [Carriers\Products](#)^[103] tab. Reminder: a parent product must be created for an account with the currency matching the partner's, otherwise it will not be available for use. Note that to make multiple IM services available for the Campaign Portal partner, several IM rate plans with different IM channel values must be added (to support both promotion and transaction Viber services, add two products with different *Product notes* correspondingly)
2. Create a Campaign Portal carrier with the help of either the *Create Campaign Portal client* button ([Carriers\Carriers](#)^[99]) or registering from the Campaign Portal
3. Assign the rate plan either with the help of the *Apply rate plan to Campaign Portal client* button ([Carriers\Products](#)^[103]) or from the *Purchase* tab of the Campaign Portal. Note that several rate plans can be assigned (one plan of each type + one plan for each Viber service + regular SMS plan)
4. The corresponding product, channel and POI will be created automatically

25.2.3.2 IM pack

To create and enable the use of an IM pack proceed as follows:

1. Create a pack in the [Campaign portal\SMS pack](#)^[356] interface and fill in the *IM channel* field. Note that to make multiple IM services available for the Campaign Portal partner, several IM packs with different IM channel values must be added (to support both promotion and transaction Viber services, add two packs with different *Pack purpose* correspondingly)
2. Create a Campaign Portal carrier with the help of either the *Create Campaign Portal client* button ([Carriers\Carriers](#)^[99]) or registering from the Campaign Portal
3. Subscribe the carrier to the pack in the [Campaign portal\SMS pack user subscription](#)^[358] interface or in the *Purchase* tab of the Campaign Portal
4. The corresponding product, channel and POI will be created automatically

25.2.4 IM provider configuration

To configure an IM provider, proceed as follows:

1. Create a carrier, account and agreement for the partner the same way as for an SMS carrier
2. Add a product of the IM type specifying the IM channel. If a client is supposed to use multiple IM services, add a separate product, channel and POI for each service. To support both Viber services (promotion/transaction), two separate products with corresponding *Product notes* must be added

3. Add a channel of vendor direction and the HTTP protocol for the product. Note that the URL template as well as the POST template (if required by the provider's API) must be filled in appropriately
4. Add an SMS POI for the IM product and channel.

Note that it is possible to use one channel for both Viber services while there must be two products and POIs with different service types (can be set to any as the value is not verified on Viber side). To support Viber-related fields, the following markers can be used in a vendor channel:

`$message_purpose$` - the marker contains the value of the message-purpose field (transaction/promotion) either received from a client or calculated by the SMS switch

`$viber_message_type$` - the marker contains the value of the viber_message_type parameter from the client request. If a message is sent from the Campaign Portal, the value is calculated by the SMS switch

`$viber_message$` - the marker contains a value in the JSON format based on the following rules:

1. if viber_message_type is not set or ends with 6, only #txt is included in JSON
2. if viber_message_type ends with 7, only #img is included in JSON
3. if viber_message_type ends with 8 or 10, then #img, #txt, #caption, and #action are included in JSON
4. if viber_message_type ends with 9, then #txt, #caption, and #action are included in JSON
5. if viber_message_type starts with 2, then tracking_data is included in JSON

An example of Viber configuration is as follows:

URL template: https://services.viber.com/vibersvc/1/send_message

POST template: {

```
"service_id":$ani$,
"dest": "$dnis$",
"seq": $ownIntMessageId$,
"type":$viber_message_type$,
"label": "$message_purpose$",
"message":$viber_message$
}
```

25.2.5 Routing configuration

All routing rules must be set as usual. The routing module will search for the rules where a specific IM provider is set. For example, if a request is received from a WhatsApp product, only rules where the WhatsApp vendor has been specified as a choice will be checked.

25.3 Simulation

Once all carrier-related configuration along with routing one is complete, it is possible to verify the results with the help of the Simulation tool.

1. Access the page and select any client product and its POI

2. To test IM services, select the Use IM channels flag. Note that it's possible to select several channels as well as sms
3. Set the IM text (text that can be sent to IM providers) and regular message text if required
4. Specify the rest simulation parameters
5. Click on the Get routes and verify the result via the view log hyperlink

Note that a simulation log with specified IM channels differs from a regular one. As a routing module can route an IM message received from a specific IM client channel to the same IM vendor channel (for example, Viber to Viber and WhatsApp to WhatsApp), the log is divided into sections, one for each selected service. The same selected channels can be found in the *List of requested IM Channels* entry of the log. An example of a section is as follows:

```
<whatsapp> ===== route search trace ==(IM channel <whatsapp>)======
```

Each section is marked with the IM channel name for better guidance:

```
<whatsapp> ----- initial data -----
```

```
<whatsapp> ANI/DNIS    1 / 7, ToN 1/1, NPI 1/1, DC 0, parts 1, concat 0, segmented , message length 6
```

```
<whatsapp> guid      omniChannel
```

```
<whatsapp> text      IM
```

```
<whatsapp> serviceType
```

```
.....
```

Additionally every section illustrates the flow of route searching which is similar to regular SMS routing ([client identification](#), [vendor available rates](#), [search for suitable rules](#)), see [Appendix 5. SMS simulation troubleshooting guide\Simulation process](#)^[44b].

25.4 Sending messages from the Campaign Portal

Once the configuration is completed and verified, it's possible to test message sending from the Portal.

NOTE: If more than one channel is selected for message termination, the System will reserve cost/messages as if the message was sent towards all channels. Once the message is confirmed to be submitted successfully/delivered over a channel, cost/messages for the services that have not been used will be returned to the balance/SMS packs according to the billing option set for the product. This is done to prevent a user from exceeding the allowed credit limit (in case of any) or consumption of packs.

Example: Suppose the user's balance is 10 USD. Channels Viber and WhatsApp are selected for message termination. Provided there is a pack for 100 left messages for Viber and a rate plan (with the price of 0.2 USD for the selected destination) for WhatsApp, once the message is sent the client's available messages/balance will look as follows:

- 99 messages are left in the Viber's pack
- the client balance will be 9.8 USD

As soon as WhatsApp sends a successful response (suppose that the client product is billed based on submitted messages), it will be updated to:

- 100 messages are left in the Viber's pack

- the client balance will be 9.8 USD

25.4.1 Sending a single message

To send a single message, proceed as follows:

1. Log in to the Alaris Campaign Portal
2. Specify the *Sender ID* and *Recipient* in the Dashboard panel
3. Select the available IM services through which a message must be sent. Drag and drop the IM channels to set the order. Note that TTL can be changed for each IM service for each attempt. To adjust the default values, access the [Administration\IM channels](#) ^[413] tab of the Campaign Portal

Reminder: the SMS channel will remain last in the drag'n'drop window

4. Provide the value in the *Message* field if the SMS channel has been selected
5. Provide the value in the *IM message* field if an IM channel has been selected
6. Specify the *Image URL*, *Button caption* and *Button action URL* field values if the Viber promotion service must be used.

NOTE: Once *Image URL* is set, the *Message purpose* value will be set to *promotion*. *Button caption* and *Button action URL* field values must be specified

7. Once the Viber channel is selected, the checkbox *Expect user response* can be selected, which has an effect on the message type sent to the provider
8. Click *Send SMS*

25.4.2 Sending a campaign

To send a campaign, proceed as follows:

1. Upload contacts in the [Contacts](#) ^[399] page
2. Add a MO reply template in the [Templates](#) ^[403] page if necessary
3. Prepare a file and upload it in the [Campaigns\Send from file](#) ^[387] tasks tab. The tab allows selecting necessary channels (only IM, IM+SMS, only SMS) as well as TTL for each IM service and their order. All IM-related fields can be parsed in the file during this step. Once the campaign parameters are set, click the *Send messages* button

The message status can be found in the [Statistics](#) ^[397] page. It is also possible to verify the channel to which the message was sent with the help of the *IM channel* column.