

JeraSoft Billing

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# Home

Welcome to JeraSoft VoIP Carrier Suite Documentation Portal! These Guides will make working with JeraSoft VCS much easier.

Please refer to the contents on the left for the **Main Guide**. It contains information about all modules, functions, settings, please check the section and the related subsections.

## How is it organised?

Section	Information
<a href="#">JeraSoft Billing First Steps</a>	Information for our <b>new customers</b> . Check here for all initial steps required to start using the system, making your environment secure and stable
<a href="#">Knowledge Base</a>	Common <b>usage cases</b> , frequently asked questions, troubleshooting guide, etc.
<a href="#">Integration Guide</a>	Step-by-step guides describing <b>integration</b> with switches, gateways, etc.
<a href="#">Welcome to the Release Notes</a>	Notes related to the <b>new releases</b> of the system. Please check it before scheduling your upgrades

# Interface Basics

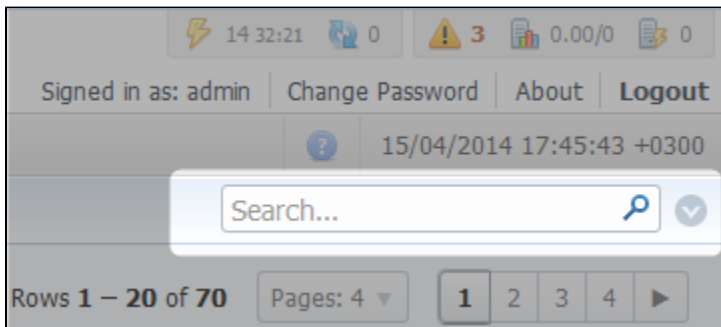
## On this page

- [Quick Search](#)
- [SmartBar](#)
- [InfoBar](#)
- [Section Tabs](#)
- [Change Password](#)
- [System Logout](#)

## Quick Search

This tool is used to perform a search of any information within administrator interface inside current section. For example, you can search for clients, rates, etc.:

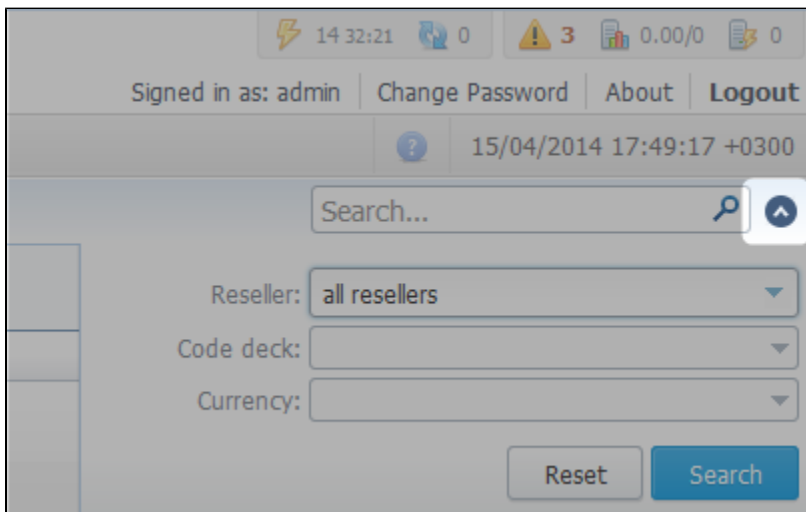
*Screenshot: Quick Search panel*




**Note:** *Quick Search* panel will not be present in every section of the system. It's available only in sections that contain listed information – *Clients* section, *Rate Tables*, etc.

Some sections allow the use of Advanced Search function, that is activated by clicking on arrow button (Screenshot):

*Screenshot: Advanced Search panel*



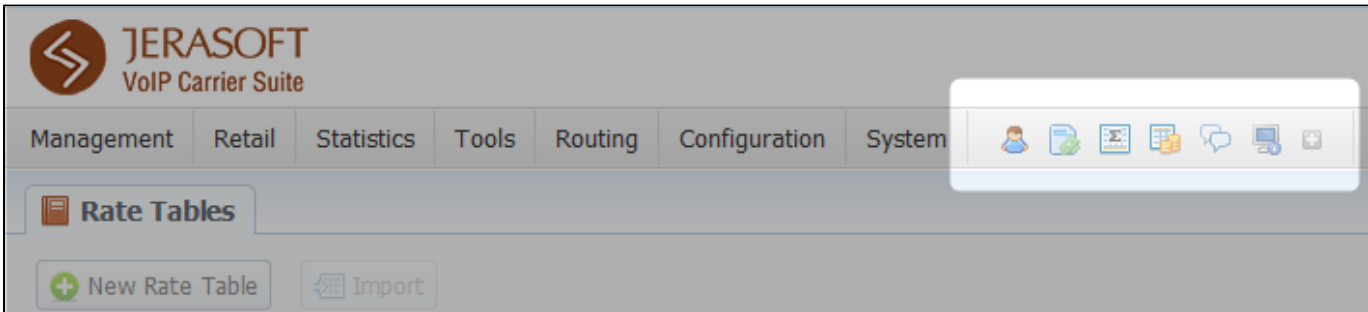


 **Note:** If the arrow button has red color, this means that search is performed on selected parameters.

## SmartBar

For quick launch of any system section indirectly, you can use the *SmartBar* shortcut panel. It is always situated in the upper part of the window, next to listing of system's sections:

*Screenshot: The SmartBar*

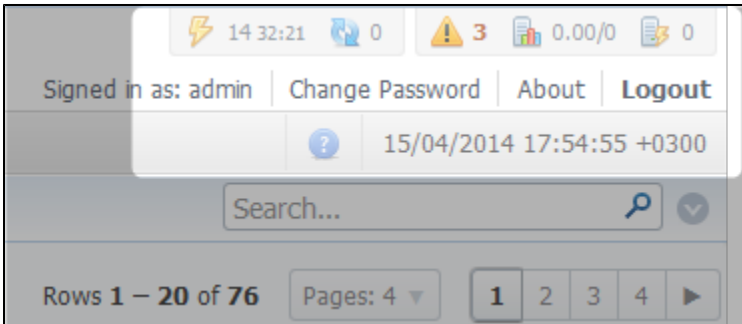


To add a shortcut of any section to SmartBar, press “+” button near section's name. To remove the shortcut, press “-” button at same location.




## InfoBar



To have access to fast-changing system information system features the information panel – *InfoBar*.

*Screenshot: The InfoBar*



It is situated at top-right part of the screen and displays the following information:

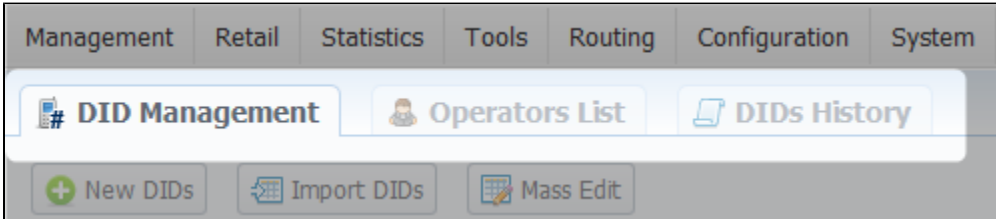
Icon	Description
	CDR queue
	CDRs in queue for rerating
	Information about system alerts

	Load average on server / Number of CPU cores
	Number of running billing services

## Section Tabs

Some functions of the sections are now available as Section Tabs (Screenshot below). This feature is designed to make your work with this sections much more easier and comfortable.

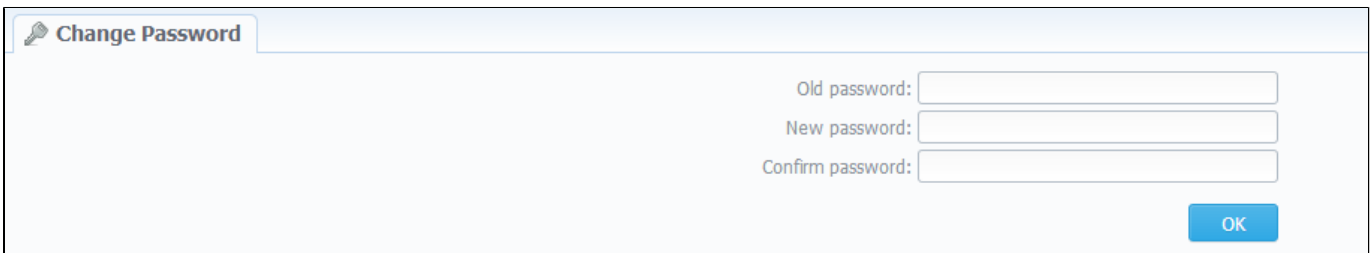
Screenshot: Section Tabs



## Change Password

You can change current password by using *Change Password* menu (Screenshot):

Screenshot: Change Password menu



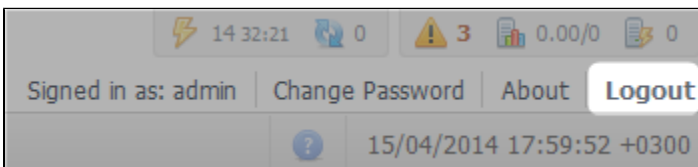
The screenshot shows a form titled "Change Password" with a key icon. It contains three input fields: "Old password:", "New password:", and "Confirm password:". Below the fields is a blue "OK" button.

To change a password, enter current password in *Old Password* field, and enter a new password in *New Password* and *Confirm Password* fields. When you press "OK" button, current password will change.

## System Logout

You can logout from system by using *Logout* menu (Screenshot):

Screenshot: Logout menu



# Management

This section of our Guide contains information about how you can provide different management through JeraSoft VCS. For more details please go to the related sections:

- [Clients](#)
- [Accounts](#)
- [Rate Tables](#)
- [Invoices](#)
- [Transactions](#)
- [Balance Report](#)
- [Resellers](#)

# Clients

## On this page

- [Clients List](#)
- [Adding New Client](#)
- [Clients Templates](#)
- [Knowledge Base Articles](#)

## Clients List











This section is used to manage your customers, providers and all related information. Main window of this section is represented by list of all available clients:


Screenshot: Clients section main window

Clients		Clients Templates																			
New Client		Export List		Rows 1 – 15 of 15 Pages: 1 1																	
ID	Name	Balance						Pay Terms	Groups	Reseller											
		Available	Live	Fixed																	
4205	Customer 1	114 829.69 DKK	-14 885 170.31	-1 897.85				Every day		RESELLER A											
11	Customer A	-335.00 DKK	-435.00	3 445.30				Monthly		RESELLER A											
22	Customer B	9 475.87 USD	-524.13	-276.34				Monthly		Reseller B											
27	Customer D	1 404.00 DKK	-3 596.00	-320.00				Monthly		RESELLER A											
39	Customer E	97 345.64 DKK	97 345.64	100 000.00				2nd day of month		Reseller B											
25	Customer F	6 514.11 DKK	-1 485.89	-1 836.68				6th day of month		RESELLER A											
34	Customer G	No Limit DKK	-1 284.05	-99.34				Monthly		RESELLER A											
31	Customer H	-10 495.24 DKK	-13 495.24	-12 449.24				Monthly		Reseller B											
21	Customer I	3 651.03 USD	3 650.03	4 021.05				Monthly		Reseller B											
20	Customer J	16 350.12 1/2USD	15 549.12	19 607.84				Monthly		RESELLER A											
15	Customer K	15 436.34 DKK	-4 563.66	-2 626.99				Monthly		RESELLER A											
23	Customer L	8 528.99 1/2USD	-11 471.01	-11 015.58				Monthly		Reseller B											
28	Customer M	-1 562.10 DKK	-2 062.10	-4 471.58				Monthly		RESELLER A											
16165	Customer_one	2 500.00 TEA	0.00	0.00				Monthly		RESELLER A											
16166	Customer_two	5.00 USD	0.00	0.00				Every day		Kyivstar											

Column Name	Description
<b>ID</b>	Client's identification number
<b>Name</b>	Client's name
<b>Balance</b>	Client's balance values
	<ul style="list-style-type: none"> <li>• <b>Available</b></li> </ul> "Live" client's balance including allowed credit
	<ul style="list-style-type: none"> <li>• <b>Live</b></li> </ul> Client's balance calculated on basis of performed payments and processed calls
<ul style="list-style-type: none"> <li>• <b>Fixed</b></li> </ul> Client's balance calculated on basis of the outstanding invoices and performed payments	
<b>Pay Terms</b>	Payment terms of each client
<b>Groups</b>	Indicates, which group respective client belongs to
<b>Reseller</b>	Name of reseller company respective client belongs to

Icon	Description
------	-------------

	Is used to identify the Orig/Term client	
	Is used to identify the Orig client	
	Is used to identify the Term client	
	Is used to edit accounts (gateways, sip-accounts etc.)	
	Is used for accessing client's current routing plan (icon will be colored if plan is assigned)	
	Is used to add additional configurations to dynamic routing for current client	
	Is used to display client's rates	
	<ul style="list-style-type: none"> <li>• <b>ORIG</b></li> </ul>	Rate tables for incoming calls
	<ul style="list-style-type: none"> <li>• <b>TERM</b></li> </ul>	Rate tables for outgoing calls
	Is used to to assign and manage your packages	
	Is used to manage client's balance. It's a shortcut to <i>Transactions</i> section	
	Is used to manage client's invoices. It's a shortcut to <i>Invoices</i> section	
	Is used to manage client's balance report (Live or Fixed). It's a shortcut to <i>Balance Report</i> section	
	Is used to manage client's summary report. It's a shortcut to <i>Summary Report</i> section	
	Allows access to current client's client control panel (icon will be colored if access is available for customer)	
	Is used to view sends history. It's a shortcut to <i>Mail Queue</i> section	
	Is used to view change history. It's a shortcut to <i>Audit Log</i> section	
	Is used to delete a client from the system	

 **Tip:** If prepaid mode is enabled, calls will be subject to balance check on stage of call authorization (when RADIUS Authorization is used). If postpaid mode is enabled, calls duration will be limited to "Max Call Duration" set in *Configuration – Settings*.

Quick Search filters (Screenshot below) in Clients section main window helps in finding clients (for instance, clients belonging to a certain *Group* or having *Active status* etc.). To open this form click on arrow button. *Orig Group*, *Term Group*, *DID Group* filters will be visible and active only if you click on "Advanced" button.

Screenshot: Quick Search form

Group:

Orig Group:

Term Group:

DID Group:

Status:

Reseller:

Type:

Account:

Account IP:

Payment Terms:

ORIG Rate Table:

TERM Rate Table:

Routing Plan:

Client ID:

## Adding New Client

To add a new customer, press "New client" button. A dialog-window will show up:

*Screenshot: Adding new client*

**New Client**

**SYSTEM INFORMATION**

Name:

Reseller:

Currency:

Timezone:

Status:

Groups:

Tax Profile:

Bill Calls by:

Hidden Numbers

**CLIENT PANEL**

Login:

Password:

Access:

**TERMINATOR SETTINGS**

Rate Table:

Capacity:  channels

**ORIGINATOR SETTINGS**

Allowed Credit:  USD

Payment Terms:

Rate Table:

Routing Plan:

Capacity:  channels

**LOW BALANCE NOTIFICATION**

Notify Client:  USD

Notify Admin:  USD

**AUTOINVOICING**

Template:

Last Invoiced:

**RATE NOTIFICATION**

Format:

Notify type:

**AUTO PAYMENT**

Extra Amount:  USD

**COMPANY INFO**

Name:

Main E-mail:

NOC E-mail:

Billing E-mail:

Rates E-mail:

Address:

Tax ID:

Reg ID:

Account Details:

Locale:

Fill next fields:

Section	Fields Description
<b>System Information</b>	General information about client
	<ul style="list-style-type: none"> <li><b>Name</b> - A client's name</li> </ul>
	<ul style="list-style-type: none"> <li><b>Reseller</b> - Here you can select the name of one of your companies (or affiliates) that you can add in Resellers section (this name will be used in invoices)</li> </ul>
	<ul style="list-style-type: none"> <li><b>Currency</b> - Preferred currency (will be used in invoices)</li> </ul>
	<ul style="list-style-type: none"> <li><b>Timezone</b> - Specify the timezone (will be used in invoices)</li> </ul>
	<ul style="list-style-type: none"> <li><b>Status</b> - Current client status</li> </ul>
	<ul style="list-style-type: none"> <li><b>Groups</b> - You can specify a group to which current client will belong to (only available if current user has necessary role installed. Refers to <i>Client Groups</i> section)</li> </ul>
	<ul style="list-style-type: none"> <li><b>Tax Profile</b> - You can specify a tax profile which will be reflected in invoices (refers to <i>Taxes Profiles</i> section)</li> </ul>
<ul style="list-style-type: none"> <li><b>Bill Calls By</b> - Select how the system should bill calls of current client – by setup time, connect time or disconnect time (most switch models use disconnect time)</li> </ul>	

	<ul style="list-style-type: none"> <li>• <b>"Enable number formatting" checkbox</b></li> </ul>	Allows you to hide some numbers from calls made by this client
<b>"Client Panel Access" checkbox</b>	<p>Activates/deactivates the log in procedure to the client's control panel for current client. Customer can get access to this control panel by using following link: <a href="http://vcs_address/clients/">http://vcs_address/clients/</a></p> <p>Sections that are available to clients within that control panel can be turned on or off by respective checkboxes. Full list of available sections is the following: Client Info, Invoices, Rates List, Summary Report, CDRs List, Balance Report, Payment Gateways, Change Password.</p> <p><b>Important:</b> if no login for "Client Panel Access" is specified or no fields are selected, then access to control panel will be forbidden. This access is configured with list of available fields and following parameters</p>	
	<ul style="list-style-type: none"> <li>• <b>Login</b></li> </ul>	Client's login
	<ul style="list-style-type: none"> <li>• <b>New password</b></li> </ul>	Client's password
<b>Originator Settings</b>	Settings for your customers, who send calls to your switch. Current clients' billing settings are specified here	
	<ul style="list-style-type: none"> <li>• <b>Mode</b></li> </ul>	Sets the balance check when <i>Radius Authorization</i> is used. The check is on when " <i>Prepaid</i> " is selected, and off when " <i>Postpaid</i> " is
	<ul style="list-style-type: none"> <li>• <b>Allowed Credit</b></li> </ul>	Credit limit
	<ul style="list-style-type: none"> <li>• <b>Payment Terms</b></li> </ul>	Select the payment terms template
	<ul style="list-style-type: none"> <li>• <b>Rate table</b></li> </ul>	Select the origination rate table
	<ul style="list-style-type: none"> <li>• <b>Routing Plan</b></li> </ul>	Select appropriate routing plan that will be used to route all calls of this customer (but it may be overridden for any of customer's accounts in <i>Accounts</i> tab)
	<ul style="list-style-type: none"> <li>• <b>Capacity</b></li> </ul>	Summary origination capacity for this client
<b>Terminator Settings</b>	Settings for your vendors, whom you send calls from your switch. Current clients' billing settings are specified here	
	<ul style="list-style-type: none"> <li>• <b>Rate table</b></li> </ul>	Select the termination rate table
	<ul style="list-style-type: none"> <li>• <b>Capacity</b></li> </ul>	Summary termination capacity for this client
<b>Low Balance Notifications</b>	Here you can setup whether system should make low balance notifications or not	
	<ul style="list-style-type: none"> <li>• <b>Notify Client</b></li> </ul>	When clients' balance+credit is below entered value, system will send a notification to clients' <i>Billing e-mail</i>
	<ul style="list-style-type: none"> <li>• <b>Notify Admin</b></li> </ul>	When clients' balance+credit is below entered value, system will send a notification to administrator via <i>Events Log</i>
<b>"Autoinvoicing" checkbox</b>	Activates/deactivates the automatic invoice generation feature for current client. It can be configured with parameters	
	<ul style="list-style-type: none"> <li>• <b>Template</b></li> </ul>	Select an invoice template for this customer
	<ul style="list-style-type: none"> <li>• <b>Last Invoiced</b></li> </ul>	Specify last day, that the client has already been invoiced for



<b>"Rate Notification" checkbox</b>	Here you can enable or disable automatic rates notification for current client	
	• <b>Format</b>	Select desirable format of rate notification (XLS or CSV)
	• <b>Notify Type</b>	Specify a type of notification <i>All rates</i> - full price list <i>Only changed rates</i> - only changed rates will be send <i>All rates - unique mode</i> - if there two or more new rates with different effective date for one code, several files will be sent and each will contain all unchanged rates and only one rate change for one code
<b>"Auto Payment" checkbox</b>	Activates/deactivates the automatic charge to customers' credit card registered in <i>Authorize.net</i> electronic payment service. Please note that such credit card you can register via <i>Refill balance</i> section in <i>Customer's panel</i>	
	• <b>Extra Amount</b>	Define a payment amount
<b>Company Info</b>	Some additional information about client can be entered here	
	• <b>Name</b>	Company name
	• <b>Main E-mail</b>	Company e-mail for general inquiries
	• <b>NOC E-mail</b>	Company email for technical related questions
	• <b>Billing E-mail</b>	Automatically generated invoices and notifications will be sent on this e-mail address
	• <b>Rates E-mail</b>	Company e-mail for rates related questions
	• <b>Address</b>	Physical company address
	• <b>Tax ID</b>	Customer's tax ID
	• <b>Reg ID</b>	Customer's registration ID
	• <b>Account Details</b>	Reference information about client's bank account or payment details
	• <b>Locale</b>	Preferred locale, that will be sent as reply to RADIUS Authorization. It is used for IVR platforms to predefine language



Autoinvoicing tool sends rates in separate files for each time profile used in certain Rate Table



**Warning:** "Full Delete" button can be used to permanently remove client from system, disregarding any statistics or rate tables data connections. Please, use this feature with care – deleted client can not be restored by any means.

## Clients Templates

This section allows you to create a client template where you can specify the main information about a client, originator settings, etc. Further, this template can be used for creating clients in several clicks with the same settings just by applying this template during client creation.

Screenshot: Clients Templates List

ID	Name	Credit	ORIG Rate Table	Routing Plan	Groups	Reseller
7	Client A	1 000.00 USD Profit		DR: Proportional		Company Name
8	Client B	1 500.00 EUR Rate-Caribbean		DR: Routes Testing		Reseller_A
9	Client C	10 000.00 UAN Figaro		DR: Complex Quality		Company Name


To create new template you need just click on respective "New Client Template" button. A dialog-window will show up, here you need to fill out all required fields, for instance, Name, Reseller, Rate Table, ect.

Screenshot: New Client Template

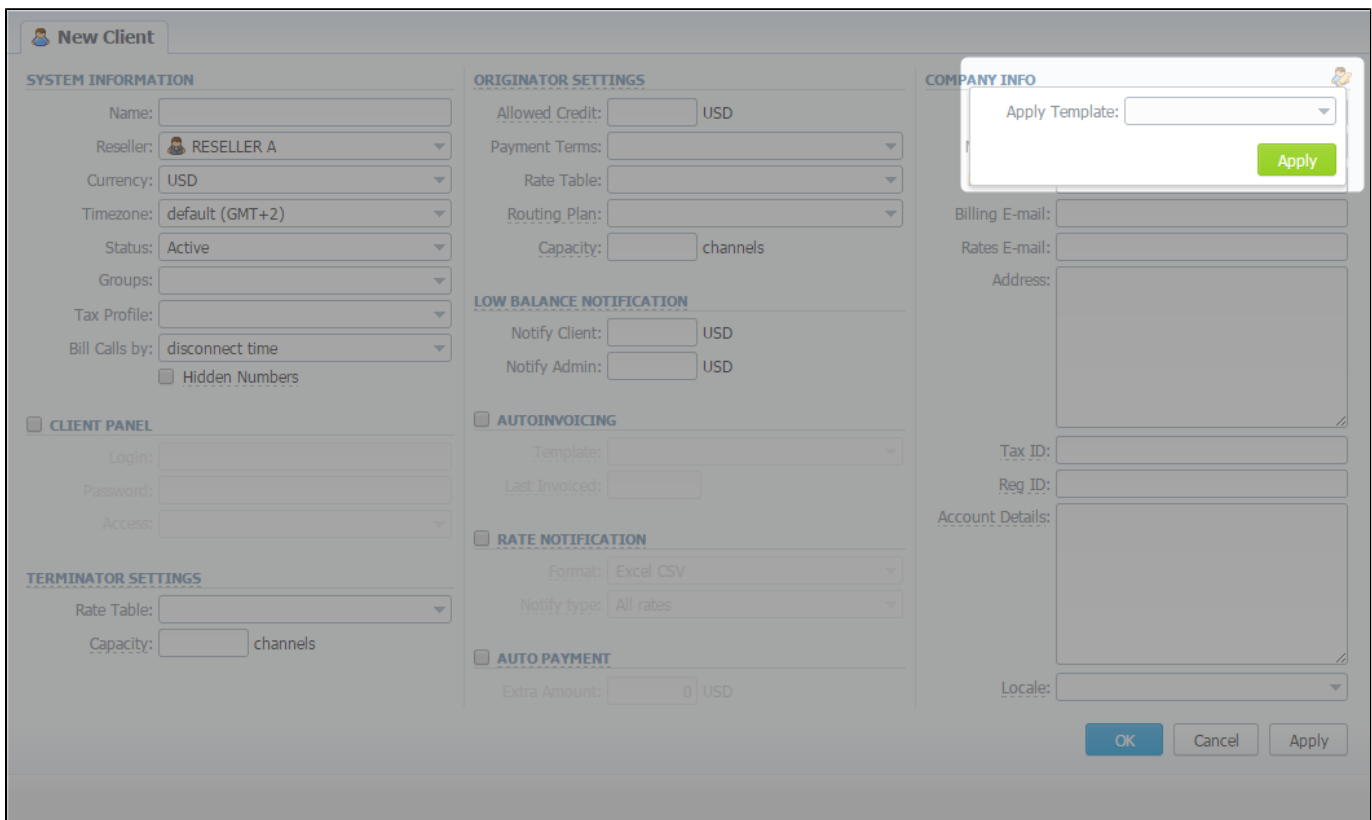
Section	Fields Description	
<b>System Information</b>	General information about client	
	<ul style="list-style-type: none"> <li><b>Name</b></li> </ul>	A client's name
	<ul style="list-style-type: none"> <li><b>Reseller</b></li> </ul>	Here you can select the name of one of your companies (or affiliates) that you can add in Resellers section (this name will be used in invoices)
	<ul style="list-style-type: none"> <li><b>Currency</b></li> </ul>	Preferred currency (will be used in invoices)
	<ul style="list-style-type: none"> <li><b>Timezone</b></li> </ul>	Specify the timezone (will be used in invoices)
	<ul style="list-style-type: none"> <li><b>Status</b></li> </ul>	Current client status
	<ul style="list-style-type: none"> <li><b>Groups</b></li> </ul>	You can specify a group to which current client will belong to (only available if current user has necessary role installed. Refers to <i>Client Groups</i> section)
<ul style="list-style-type: none"> <li><b>Bill Calls By</b></li> </ul>	Select how the system should bill calls of current client – by setup time, connect time or disconnect time (most switch models use disconnect time)	
<b>Originator Settings</b>	Settings for your customers, who send calls to your switch. Current clients' billing settings are specified here	
	<ul style="list-style-type: none"> <li><b>Allowed Credit</b></li> </ul>	Credit limit
	<ul style="list-style-type: none"> <li><b>Rate table</b></li> </ul>	Select the origination rate table

	<ul style="list-style-type: none"> <li>• <b>Routing Plan</b></li> </ul>	Select appropriate routing plan that will be used to route all calls of this customer (but it may be overridden for any of customer's accounts in <i>Accounts</i> tab)
	<ul style="list-style-type: none"> <li>• <b>Capacity</b></li> </ul>	Summary origination capacity for this client
	<ul style="list-style-type: none"> <li>• <b>Client's package name</b></li> </ul>	Specify package that will be assigned to the current client
	<ul style="list-style-type: none"> <li>• <b>Orig Groups</b></li> </ul>	Set routing groups where origination accounts of current client will belong to
<b>Client panel</b>		Activates/deactivates the log in procedure to the client's control panel for current client
	<ul style="list-style-type: none"> <li>• <b>Access</b></li> </ul>	Sections that are available to clients within that control panel
<b>Low Balance Notifications</b>		Here you can setup whether system should make low balance notifications or not
	<ul style="list-style-type: none"> <li>• <b>Notify Client</b></li> </ul>	When clients' balance+credit is below entered value, system will send a notification to clients' <i>Billing e-mail</i>
	<ul style="list-style-type: none"> <li>• <b>Notify Admin</b></li> </ul>	When clients' balance+credit is below entered value, system will send a notification to administrator via <i>Events Log</i>

The process of applying the template to a new customer is pretty simple. All you need to do:

- go to *Clients List*, click on "New Client" button;
- in pop-up window click on this icon ;
- specify the needed template in respective field and click on "Apply" button.

Screenshot: Applying template



The screenshot shows the 'New Client' configuration interface. It is divided into several sections: SYSTEM INFORMATION, CLIENT PANEL, TERMINATOR SETTINGS, ORIGINATOR SETTINGS, LOW BALANCE NOTIFICATION, AUTOINVOICING, RATE NOTIFICATION, and AUTO PAYMENT. A 'COMPANY INFO' pop-up window is overlaid on the right side, featuring an 'Apply Template' dropdown menu and an 'Apply' button. The background form is dimmed, and the pop-up window is the primary focus.

## Knowledge Base Articles

- [US Taxation](#)
- [How to set Prepaid or Postpaid mode?](#)
- [How to set up a functional capacity?](#)
- [Priority of Capacity field use in Clients section](#)

# Custom Fields

This tab allows you to manage client's custom fields, which can be used in invoice template as custom functions. This tab only displays already added and assigned fields to respective customer (Screenshot).

Screenshot: Custom Fields Clients Section

The screenshot shows a software interface for managing custom fields for a client. At the top, there are several tabs: 'Client Info', 'Custom Fields' (which is selected), 'Presets', 'Packages', 'DIDs', and 'Notes'. The client's name 'Customer A' is displayed in the top right corner. Below the tabs, there are two input fields labeled 'simple key 1:' and 'simple key 2:'. At the bottom right, there are three buttons: 'OK' (highlighted in blue), 'Cancel', and 'Apply'.

These fields themselves are added in *Management – Resellers* section by clicking on "Add Custom Field" button (Screenshot below), then you need to specify field key and title.

Screenshot: Custom Fields Reseller section

The screenshot shows the 'Add Custom Field' interface in the 'Management – Resellers' section. The top tabs are 'Edit Reseller', 'Custom Fields' (selected), and 'Rates Notifications'. The reseller's name 'Reseller A' is in the top right. A '+ Add Custom Field' button is visible. Below it is a table with two columns: 'Field Key' and 'Title'. The 'Field Key' column contains the text 'custom' and has a blue up/down arrow icon to its left. The 'Title' column contains the text 'Custom Charge Description from Reseller's tab' and has a red 'X' icon to its right. At the bottom right, there are three buttons: 'OK' (highlighted in blue), 'Cancel', and 'Apply'.


Field	Description
<b>Field Key</b>	Specify custom key for using the created field in invoice templates. Please note that this key should be unique
<b>Title</b>	Define a field title which will be the title of the clients Custom Fields form

# Presets and Translations

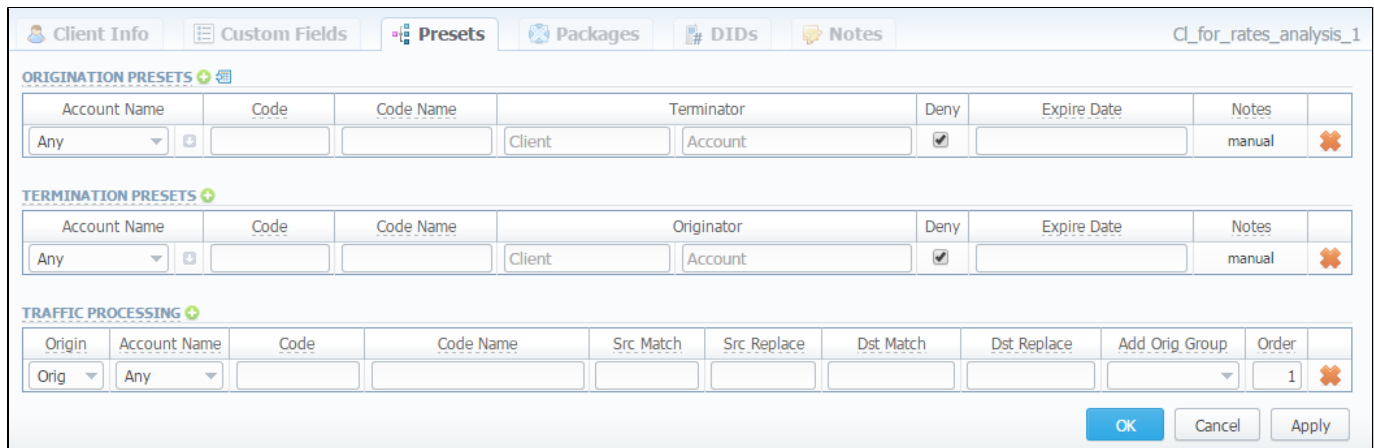
## On this page

- [Client Presets Main Window](#)
- [Adding Routing Presets](#)
- [Presets "Mass Import" Feature](#)
  - [Step 1. Selecting File and Specifying Additional Parameters](#)
  - [Step 2. Recognizing The File](#)
- [Performing Number Translation](#)

## Client Presets Main Window

The main purpose of this section is to provide an ability to exclude (block) some routes from routing scheme and to provide number translation functions. To open it, press  button. Configuration window will pop-up:

Screenshot: Client presets




The screenshot shows the 'Client Presets' configuration window. It features a top navigation bar with tabs for 'Client Info', 'Custom Fields', 'Presets', 'Packages', 'DIDs', and 'Notes'. The main content area is organized into three sections:

- ORIGINATION PRESETS:** A table with columns: Account Name (dropdown), Code, Code Name, Terminator (dropdown), Deny (checkbox), Expire Date, and Notes (text). A row is shown with 'Any' in Account Name, 'Client' in Terminator, and 'Account' in Deny.
- TERMINATION PRESETS:** A table with columns: Account Name (dropdown), Code, Code Name, Originator (dropdown), Deny (checkbox), Expire Date, and Notes (text). A row is shown with 'Any' in Account Name, 'Client' in Originator, and 'Account' in Deny.
- TRAFFIC PROCESSING:** A table with columns: Origin (dropdown), Account Name (dropdown), Code, Code Name, Src Match, Src Replace, Dst Match, Dst Replace, Add Orig Group (dropdown), and Order (text). A row is shown with 'Orig' in Origin, 'Any' in Account Name, and '1' in Order.

At the bottom right of the window, there are three buttons: 'OK', 'Cancel', and 'Apply'.

Here you can add and remove routing presets either for origination or termination routes.


## Adding Routing Presets

To add a route press a respective  button and enter all required information in next fields:

Field Name	Field Description
<b>Account Name</b>	Client's account, that should be used in current routing rule. By pressing on arrow button additional information concerning current account will be shown (i.e. account ID and Notes to this account)
<b>Code</b>	Specify a code of destination here (use * as wildcard)
<b>Code Name</b>	Or select a destination name in this field if applicable
<b>Terminator</b>	Specify a vendor or specific vendor account for whom this routing rule will work (i.e all calls coming from clients to that specified vendor will be denied to route)
<b>Originator</b>	Define a customer for whom this routing rule will work
<b>Deny</b>	Enable this to deny current route selection

<b>Expires, min</b>	Set a duration in minutes, for which the block should be active (leave blank to block forever)
<b>Notes</b>	Shows, when and how the rule was originally added. <i>Manual</i> rules added using this section, <i>auto</i> rules added by Factors Watcher

## Presets "Mass Import" Feature

By pressing  icon near "Origination Presets" rubric you will get an access to "Mass Import" feature. This feature allows you to add new presets to already existing or to purge all existing presets and add new ones. You must use this feature in order to modify huge amount of presets.

Whole mass import process can be logically divided in two steps.

### Step 1. Selecting File and Specifying Additional Parameters

Open Import tab and select a file to import on your HDD (Screenshot).

 Uploaded \*csv file shoul contain at list 2 rows.

Screenshot: Presets "Mass Import" feature main window

This step also allows you to choose some additional parameters, such as:

Field	Description	
<b>Delimiter</b>	Set delimiter for CSV file: comma, semicolon or tab	
<b>Presets import mode</b>	Select a type of import process	
	<ul style="list-style-type: none"> <li><b>Add new presets</b></li> </ul>	Add presets to already existing ones
	<ul style="list-style-type: none"> <li><b>Add new presets (purge all existing)</b></li> </ul>	Purge all existing presets and import new ones

After selecting a file and specifying all additional parameters click "Process>>" button.

### Step 2. Recognizing The File

System will recognize the file, and display few first rows of it. If there's need, make changes to the recognition of data (for instance, you can switch columns, if guess was not precise), and press "Process>>" again (Screenshot).

Screenshot: Presets "Mass Import" feature. Step 2

**Presets Import**
Customer B

---

**DEFAULT VALUES**

Account name:  Type:  Expires in (minutes):

**ROWS AND COLUMNS SELECT**

code	code name	priority	type	client	account	policy	profit margin	time profile	num length min	num length max	balance	orig groups	term groups	capacity	Skip
*		0	static	Vendor A	account_1			all time			100				<input type="checkbox"/>

After you press "Process>>" for the last time, system will start importing process. When progress-bar reaches 100%, your mass import is done!

## Performing Number Translation

To perform a number translation, press on *Traffic Processing* and fill the following fields:

Field Name	Field Description
<b>Origin</b>	Specifies, when current translation rule will be applied
	<ul style="list-style-type: none"> <li>• <b>ORIG</b> For calls originated from a client</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>TERM</b> For calls terminated to a client</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>DR</b> On Dynamic Routing, before sending calls to a terminator</li> </ul>
<b>Account Name</b>	Select a respective account here
<b>Code</b>	Specify a code of destination here (use * as wildcard)
<b>Code Name</b>	Or select a destination name in this field if applicable
<b>Src Match</b>	In this field you may set a template by which a number will be analyzed, and if template matches the number, the translation will occur in respect to settings in Src Replace field
<b>Src Replace</b>	Put a resulting action in this field, that will be performed, if translation process will take place
<b>Dst Match</b>	In this field you may set a template by which a number will be analyzed, and if template matches the number, the translation will occur in respect to settings in Dst Replace field
<b>Dst Replace</b>	Allows you to put matched calls into specified Origination Routing Group
<b>Add Group</b>	Allows you to put matched calls into specified Origination Routing Group
<b>Order</b>	Sets rules ordering, first matched rule will stop further number translations

These translation rules use regular expressions syntax. For example, if number is 123#456, Match field is ^123#(.\*) and Replace field is 789\1, then resulting number will be 789456.

Also you can insert random number with fixed digit length using variable \$rnd(xxx-yyy)\$, where xxx - start number and yyy - end number of range. For example \$rnd(050-950)\$ will be replaced by 3-digit random number from 50 to 950.






**Tip:** Please note that all routing related functions of this section are only available with ***Routing Module*** installed. Orig and Term number translations will work without ***Routing Module***.

# Clients Packages

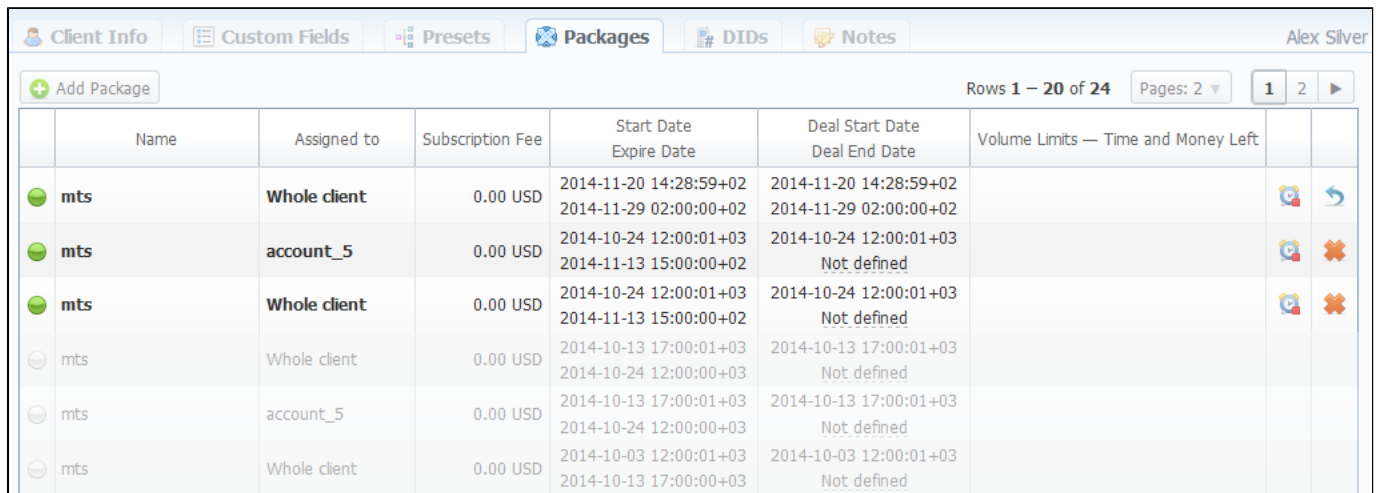
## On this page

- [Client Packages Main Window](#)
- "Add Package" Button

## Client Packages Main Window





Packages management subsection tab allows you to assign any of your packages to respective client. To access these settings, go to *Management – Clients* and press  button. In new window (Screenshot below), you can see the following:



Screenshot: Packages management



Name	Assigned to	Subscription Fee	Start Date Expire Date	Deal Start Date Deal End Date	Volume Limits — Time and Money Left
mts	Whole client	0.00 USD	2014-11-20 14:28:59+02 2014-11-29 02:00:00+02	2014-11-20 14:28:59+02 2014-11-29 02:00:00+02	
mts	account_5	0.00 USD	2014-10-24 12:00:01+03 2014-11-13 15:00:00+02	2014-10-24 12:00:01+03 Not defined	
mts	Whole client	0.00 USD	2014-10-24 12:00:01+03 2014-11-13 15:00:00+02	2014-10-24 12:00:01+03 Not defined	
mts	Whole client	0.00 USD	2014-10-13 17:00:01+03 2014-10-24 12:00:00+03	2014-10-13 17:00:01+03 Not defined	
mts	account_5	0.00 USD	2014-10-13 17:00:01+03 2014-10-24 12:00:00+03	2014-10-13 17:00:01+03 Not defined	
mts	Whole client	0.00 USD	2014-10-03 12:00:01+03 2014-10-13 17:00:00+03	2014-10-03 12:00:01+03 Not defined	

Column	Description
<b>Name</b>	Name of assigned package
<b>Assigned to</b>	Shows for whom package is assigned
<b>Subscription Fee</b>	The package price
<b>Start Date</b>	A date, when package was activated
<b>Expire Date</b>	A date, when package will be stopped, if there will be no prolongations (due to client's balance, for example)
<b>Deal Start Date</b>	Package's limits and discounts are only effective after specified date
<b>Deal End Date</b>	Package's limits and discounts are disabled after specified date
<b>Volume Limits –Time and Money Left</b>	Shows, if respective package has some volume limits and time or money left

Icon	Description
	Marks package, that was successfully activated and will renew itself due to the package settings
	Marks package, that is new for current user and not activated yet
	Marks package, that is in the archive
	Click this to insure that package will not be renewed, even if all requirements are met

	This icon allows to revert changes triggered by previous icon, until <i>Packages Manager</i> starts
	Click this icon to delete the package

## "Add Package" Button

Press "Add Package" button and in the pop-up window select a package from list and assign it by pressing «Add» button. You can assign any number of packages. They will be activated when *Package Manager* service runs, and if customer has enough balance for activation+subscription fees.

# DIDs Management

This section allows you to assign already existed DID numbers to a certain clients' account (Screenshot).

Screenshot: DIDs section window

DID	Status	Assigned to	Package name		
015108728	active	account_5	mts		✖
015108731	active	account_5	mts		✖

Column	Description
DID	List of DID numbers
Status	Status of current DID
Assigned to	Shows clients' accounts whom the current DID number is assigned to
Package name	List of packages

Icon	Description
	Click this icon to start the DID
	Click this icon to pause the DID
	Click this icon to delete the DID

## "Add DID" Button

To assign a DID number just click on "Add DID" button, then in the pop-up window specify an account, select a package, and finally, select a DID number, for applying settings press "Add DID" button (Screenshot below).

Screenshot: "Add DID" button

DID	Status	Assigned to	Package name		
	active	account_5	mts		✖
	active	account_5	mts		✖



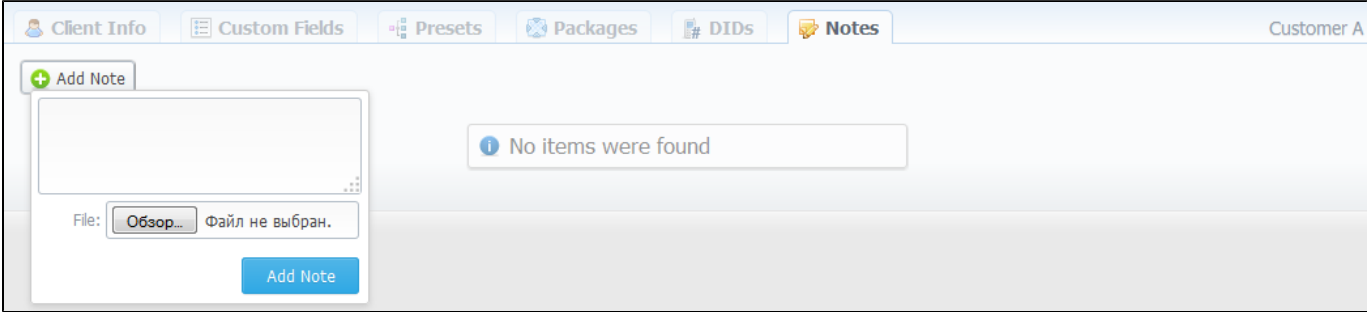
Please note that "Add DID" button is visible only if a client has at least one account and activated package. Plus you can assign only defined number of DIDs, the number which you previously specified during package creation.

# Notes

This function represents a notebook for saving different additional information concerning current client. For example, this may be used by managers to share relevant info regarding particular customer between themselves.

To add new note go to the "Note" tab, press "Add Note" button, enter the message or select a file and press "OK" button (Screenshot):

Screenshot: Adding new note




# Accounts Configuration

## On this page

- [Accounts Configuration](#)
- [Adding New Account](#)
- [Knowledge Base Articles](#)

## Accounts Configuration

By pressing button , an account configuration dialog-window will show up:

Screenshot: Accounts configuration


VCS system allows client identification in 3 different ways:

- **Ident by IP** – identification by gateway IP-address;
- **Ident by Name** – identification by user login or gateway name;
- **Ident by ANI/DNIS** – identification by src or dst number.

## Adding New Account

To add new account press  button in respective section, fill next fields and press .

Field Name	Field Description
<b>Name</b>	Name of an account in JeraSoft VCS system
<b>IP</b>	Gateway IP-address. You can specify multiple addresses, by dividing them with ",". Also you can specify the subnet with mask here in CIDR-format, e.g. "10.0.0.0/24", "200.200.200.208/28"
<b>Account Name</b>	Gateway name or user login, that is used for identification
<b>ANI</b>	Called or caller phone number
<b>Tech Prefix</b>	Technical prefix, that is used to identify users, when multiple clients use same gateway
<b>Password</b>	User password that is used with login/password identification. Also can be used through default authentication mechanism. For more info please consult your switch system manuals

<b>ORIG</b>	Allow origination from this gateway
<b>TERM</b>	Allow termination to this gateway
<b>VoIP Gateway</b>	Current account will be in use only when billing this host calls
<b>Extra fields</b>	A number of additional settings. You can see them by pressing  button in "ORIG" and "TERM" fields
<ul style="list-style-type: none"> <li>• <b>C a p a c i t y</b></li> </ul>	Set capacity for respective traffic direction
<ul style="list-style-type: none"> <li>• <b>R a t e T a b l e</b></li> </ul>	Select rate table for current account (it will have higher priority than rate table set for whole client) either for origination or termination side
<ul style="list-style-type: none"> <li>• <b>R o u t i n g P l a n</b></li> </ul>	You can specify custom routing plan for origination from this account
<ul style="list-style-type: none"> <li>• <b>P r o t o c o l</b></li> </ul>	Select respective protocol for current termination gateway
<ul style="list-style-type: none"> <li>• <b>P r o x y</b></li> </ul>	Specify proxy for current termination gateway
<ul style="list-style-type: none"> <li>• <b>P o r t</b></li> </ul>	Specify port for current termination gateway
<ul style="list-style-type: none"> <li>• <b>G r o u p s</b></li> </ul>	Set routing groups where current termination or origination account will belong to. Then, in Routing Plans section you will be able to route directly to one of these termination groups or allow routing only for these origination groups. Please consult <a href="#">Routing Details</a> section for more information

You can add unlimited number of accounts for each client.

## Knowledge Base Articles

- [How to specify CLI and non-CLI traffic?](#)
- [How to set up a functional capacity?](#)
- [Why the Account cannot be added, same IP / Name exists within other client message during adding an IP to an account appeared?](#)

# Accounts

## On this page

- [Accounts List](#)
- [Adding New Account](#)
- [Knowledge Base Articles](#)



## Accounts List

This section allows you to create and manage clients' accounts. Main window of this section is represented by the list of all available accounts in the system:

*Screenshot: Accounts Main Window Section*

ID	Client	Account	Name / ANI / IP	Tech Prefix	Orig Details	Term Details
399	Test Customer	account_11	Name: test_account	admin	RT: Expensive table	RT: — Protocol: — / Proxy: 7 / Port: —
398	Test Customer	account_12	IP: 111.11.1.11/32		RT: —	RT: —
397	Test Customer	account_13	Name: test2_account		RT: —	RT: VOX
396	Test Customer	account_14	IP: 111.20.1.57/32		RT: ORIG RT - Test Radius	RT: —
395	Test Customer	account_15	Name: test4_account		RT: —	RT: —
403	Test Customer	account_16	ANI: 55454		RT: ORIG RT - Test S GR: Orig Group 7	RT: Expensive table
404	Test Customer	account_17	ANI: 5454456		RT: —	RT: GO-Cloudex GR: Test_TermGroup



Column Name	Description
<b>ID</b>	Client's identification number
<b>Client</b>	Client's name
<b>Account</b>	Account's name
<b>Name/ ANI / IP</b>	The way of clients identification
<b>Tech Prefix</b>	Technical prefix for users identification
<b>Orig Details</b>	Settings of the Originator
<b>Term Details</b>	Settings of the Terminator

Icon	Description
	Using the following icon, you can filter accounts by a client
	Using the following icon, you can open the Clients List section

*Quick Search* filters (Screenshot below) in Accounts section main window helps in finding accounts (for instance, accounts belonging to a certain *Client* etc., . To open this form click on arrow button.

*Screenshot: Quick Search form*



Search...  

Name:

IP:

ANI:

Tech Prefix:

---

Origination:

Orig Rate Table:  ▼

Routing Plan:  ▼

---

Termination:

Term Rate Table:  ▼

---


Client Type:  ▼

Client ID:

## Adding New Account



To add a new account, press "New Account" button. A dialog-window will show up where you should fill all needed fields:

Screenshot: Adding new account

 **New Account**

GENERAL	<input checked="" type="checkbox"/> ORIGINATOR SETTINGS	<input checked="" type="checkbox"/> TERMINATOR SETTINGS
Client: <input type="text"/>	Rate Table: <input type="text"/> ▼	Rate Table: <input type="text"/> ▼
Name: <input type="text"/>	Routing Plan: <input type="text"/> ▼	Groups: <input type="text"/> ▼
IP: <input type="text"/>	Groups: <input type="text"/> ▼	Capacity: <input type="text"/> Protocol: <input type="text"/> ▼
Tech Prefix: <input type="text"/>	Capacity: <input type="text"/>	Proxy: <input type="text"/> Port: <input type="text"/>
Password: <input type="text"/>		
VoIP Gateway: <input type="text"/> ▼		
Notes: <input type="text"/>		

Section	Fields Description
General	General information about account
	<ul style="list-style-type: none"> <li>• <b>Client</b> Specify a client whom this account will belong to</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Name</b> Define a name of an account for JeraSoft VCS system</li> </ul>

	<ul style="list-style-type: none"> <li><b>Ident by</b></li> </ul> <p>VCS system allows client identification in 3 different way, you need to specify the one from the drop down list:</p> <ul style="list-style-type: none"> <li><b>IP</b> – gateway IP-address. You can specify multiple addresses, by dividing them with “;”. Also you can specify the subnet with mask here in CIDR-format, e.g. "10.0.0.0/24", "200.200.200.208/28"</li> <li><b>Name</b> – gateway name or user login, that is used for identification</li> <li><b>ANI</b> – called or caller phone number</li> </ul>
	<ul style="list-style-type: none"> <li><b>Tech Prefix</b></li> </ul> <p>Define technical prefix, that is used to identify users, when multiple clients use same gateway</p>
	<ul style="list-style-type: none"> <li><b>Password</b></li> </ul> <p>Set a user password that is used with login/password identification. Also can be used through default authentication mechanism. For more info please consult your switch system manuals</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p> Note that the password can be automatically generated, you need just to click on the icon  abc in the password field.</p> </div>
	<ul style="list-style-type: none"> <li><b>VoIP Gateway</b></li> </ul> <p>Specify a gateway for the account which will be in use only when billing this host calls. Please note that starting from VCS 3.8.6 it is possible to assign more than one VoIP Gateway to one account.</p>
	<ul style="list-style-type: none"> <li><b>Notes</b></li> </ul> <p>Additional information about current account</p>
<b>Originator Settings</b>	Settings for your customers, who send calls to your switch
	<ul style="list-style-type: none"> <li><b>Rate Table</b></li> </ul> <p>Select rate table for current account (it will have higher priority than rate table set for whole client) for origination side</p>
	<ul style="list-style-type: none"> <li><b>Routing Plan</b></li> </ul> <p>You can specify custom routing plan for origination from this account</p>
	<ul style="list-style-type: none"> <li><b>Groups</b></li> </ul> <p>Set routing groups where current origination account will belong to. Then, in Routing Plans section you will allow routing only for these origination groups. Please consult <a href="#">Routing Details</a> section for more information</p>
	<ul style="list-style-type: none"> <li><b>Capacity</b></li> </ul> <p>Set capacity for respective traffic direction</p>
<b>Termination Settings</b>	Settings for your vendors, whom you send calls from your switch
	<ul style="list-style-type: none"> <li><b>Rate Table</b></li> </ul> <p>Select rate table for current account (it will have higher priority than rate table set for whole client) for termination side</p>
	<ul style="list-style-type: none"> <li><b>Groups</b></li> </ul> <p>Set routing groups where current termination account will belong to. Then, in Routing Plans section you will be able to route directly to one of these termination groups. Please consult <a href="#">Routing Details</a> section for more information</p>
	<ul style="list-style-type: none"> <li><b>Capacity</b></li> </ul> <p>Set capacity for respective traffic direction</p>
	<ul style="list-style-type: none"> <li><b>Protocol</b></li> </ul> <p>Select respective protocol for current termination gateway</p>

<ul style="list-style-type: none"><li>• <b>Proxy</b></li></ul>	Specify proxy for current termination gateway
<ul style="list-style-type: none"><li>• <b>Port</b></li></ul>	Specify port for current termination gateway

You can add unlimited number of accounts for each client.



Please note that two identical accounts can be assigned only to different VoIP Gateways.

## Knowledge Base Articles

- [How to specify CLI and non-CLI traffic?](#)
- [How to set up a functional capacity?](#)
- [Why the Account cannot be added, same IP / Name exists within other client message during adding an IP to an account appeared?](#)

# Rate Tables

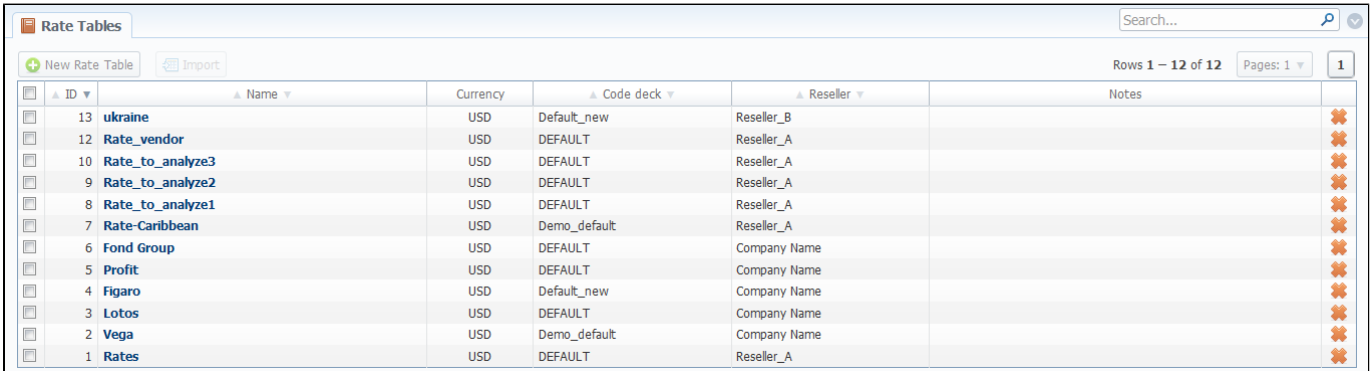
## On this page

- [Rate Tables List](#)
- [Adding New Rate Table](#)
- [Configuring The Rates](#)
- [Knowledge Base Articles](#)

## Rate Tables List

Allows you to manage your rate tables. Main window of this section is presented on screenshot down below:

Screenshot: Rate Tables section main window

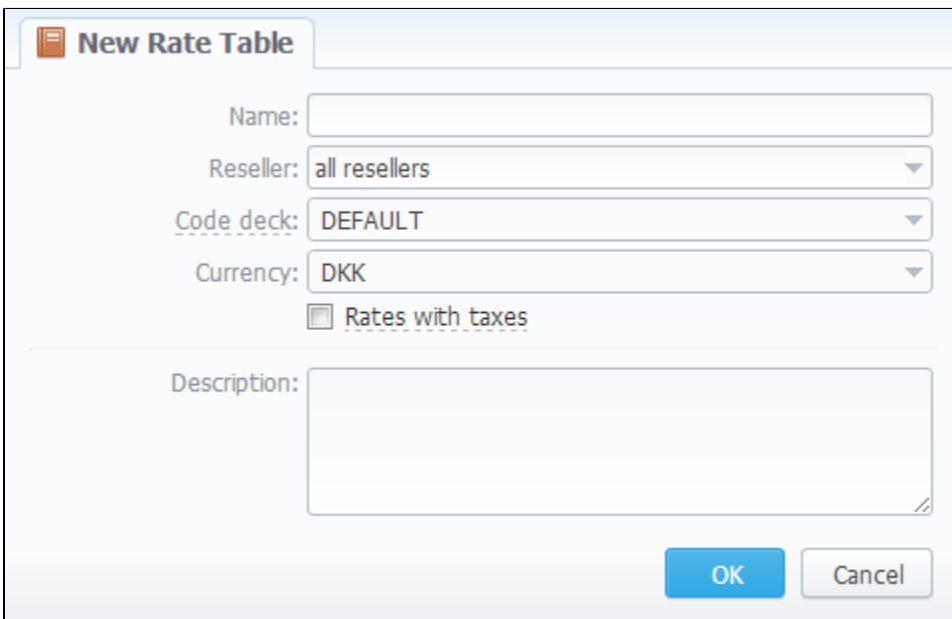


ID	Name	Currency	Code deck	Reseller	Notes
13	ukraine	USD	Default_new	Reseller_B	
12	Rate_vendor	USD	DEFAULT	Reseller_A	
10	Rate_to_analyze3	USD	DEFAULT	Reseller_A	
9	Rate_to_analyze2	USD	DEFAULT	Reseller_A	
8	Rate_to_analyze1	USD	DEFAULT	Reseller_A	
7	Rate-Caribbean	USD	Demo_default	Reseller_A	
6	Fond Group	USD	DEFAULT	Company Name	
5	Profit	USD	DEFAULT	Company Name	
4	Figaro	USD	Default_new	Company Name	
3	Lotos	USD	DEFAULT	Company Name	
2	Vega	USD	Demo_default	Company Name	
1	Rates	USD	DEFAULT	Reseller_A	

## Adding New Rate Table

To add new rate table, press “New Rate Table” button, define name, currency of the rate table, code deck that will be tied to this rate table, reseller, tax settings and value and description as you can see on screenshot below. This section will also store all rate tables that you plan to analyze via *Rates Analysis* section. You will be able to change these settings later by using “Parameters” tab. After everything is entered, press “OK” button. New rate table will appear on the list.

Screenshot: Adding new rate table



**New Rate Table**

Name:

Reseller:

Code deck:

Currency:

Rates with taxes

Description:

# Configuring The Rates

To configure the rates, click on the table's name.

The rate management is executed with next six tabs:

Tab	Description
<b>Rates</b>	Rates configuration
<b>Extra</b>	Extra rates configuration
<b>Simulate</b>	Call simulation tool
<b>Import</b>	Rates importing from csv or xls files
<b>Export</b>	Rates exporting to csv or xls files
<b>Parameters</b>	Here you can change some parameters that you've specified during rate table creation

## Knowledge Base Articles

- [How to bill by Access Numbers \(A-number billing\)?](#)

# Rates Tab Description

## On this page

- [Rates Section Tab](#)
- [Adding New Rate](#)

## Rates Section Tab

You can select different rates with different tariffication parameters for each code (Screenshot):

Screenshot: Adding new rates

Code	Code Name	Rate	Changes	Effective Date	Min	Int	Extra Fields
1	USA	2.0000	0.0000	2014-07-09 00:00:00+00	1	1	TP: all time
1203555	USA DQ	0.0000	0.0000	2014-07-09 00:00:00+00	1	1	TP: all time
1204	CANADA MANITOBA PROPER	0.0010	0.0000	2014-04-09 21:00:00+00	1	1	TP: all time
1205555	USA DQ	2.1000	0.0000	2014-07-09 00:00:00+00	1	1	TP: all time
1207554	USA PREMIUM	2.5000	0.0000	2014-07-09 00:00:00+00	1	1	TP: all time

## Adding New Rate

To create a new rate line, press "Add Rate" button and fill next fields:

Field	Description
<b>Code</b>	A destination code
<b>Code Name</b>	Name of code group (available if code deck is attached)
<b>Rate</b>	Price per 1 minute of call
<b>Changes</b>	A field that shows how current rate differs from previously effective one
<b>Effective Date</b>	Rate start date (newest available rate for particular destination)
<b>Min</b>	Minimal time of call that will be tarifficated. For example, if total call time was 20 seconds, and <i>Min Time</i> is 30, then client will pay for 30 seconds of call
<b>Int</b>	Tariffication interval. This parameter is used, when <i>Min Time</i> time expires
<b>Extra Fields</b>	Additional parameters are stored under  icon
• <b>Rate Group</b>	Specify group for jurisdictional billing

<ul style="list-style-type: none"> <li>• <b>End Date</b></li> </ul>	After specified date the rate would not be used
<ul style="list-style-type: none"> <li>• <b>Profile</b></li> </ul>	Which time profile will be used for current rate
<ul style="list-style-type: none"> <li>• <b>Setup Fee</b></li> </ul>	Setup fee (charged when call duration is longer then 0 seconds)
<ul style="list-style-type: none"> <li>• <b>Grace Time</b></li> </ul>	Time interval that will not be tarificated (free time). For instance, if you specified 5 sec as a <i>Grace time</i> , that means, all calls with duration up to 5 seconds (including calls with session time of 5 seconds) will be free of charge
<ul style="list-style-type: none"> <li>• <b>Notes</b></li> </ul>	Additional information about current rate

After you finish filling all fields, press "" button.



**Tip:** On top of the page there is a search engine, that allows you to search for rates (codes or code names) by using \* as a wildcard, and also allows to sort whole table by few criteria: confirmed/unconfirmed and rate actuality (including old, current, future and current+future templates).



**Tip:** If you see rate row colored in yellow, this means that it is in *pending* state and needs to be confirmed. To do so, check respective rate and click "Confirm" button.

# Rates Management

Recommended rates management practice includes few tips that can make routine job easier.

**Tip 1:** If you have received an update to your rate table, do not delete or edit already present information. Simply import updated price list on top of your current one, this will update your rates with new effective dates, while no longer actual rates will be hidden. Read more about importing process in *Import* subsection.

**Tip 2:** If an existing rate was changed and *Effective From* field specifies a date that have passed, then all calls will not be automatically rerated using this new rate. You should rerate them manually with *Calls Rerating* section.

**Tip 3:** As an example of calculation, let's imagine that *Rate* = 1, *Min Time* = 30, *Interval* = 1, *Grace Time* = 2, *Setup Fee* = 0,3, where:

- *Rate* is a price of call per 1 minute.
- *Min Time* – minimal time of call that will be tarificated.
- *Interval* – tarification interval which is used, when *Min Time* time expires.
- *Grace Time* – time interval that will not be tarificated (free time). For instance, if you specified 5 sec as a *Grace time*, that means, all calls with duration up to 5 seconds (including calls with session time of 5 seconds) will be free of charge.
- *Setup Fee* – call fee, which is charged when call duration is longer then 0 seconds.

So, according to the given data if call duration was less than 2 seconds, then total call cost will be 0 currency units. If call duration was between 2 and 30

$$\text{Setup fee} + \frac{\text{Rate}}{\text{Rate Formulas}} \cdot \text{Min Time}$$

seconds, then total call cost will be where *Rate Formulas* is the amount of seconds in a minute that will be used while billing the calls, which is 0,8 currency units regarding the presented data. If call duration was more than 30 seconds, then total call

$$\text{Setup fee} + \frac{\text{Rate}}{\text{Rate Formulas}} \cdot \text{quantity of call seconds}$$

cost will be

currency units.

**Tip 4:** You can change rate tables' currency in *Parameters* tab.

**Tip 5:** All rate fields, that define time, have time format in seconds, while in *Rate* field you specify the cost for 1 full minute of call.

**Tip 6:** If you require to perform bulk update or edit of your rates, you can use Mass Edit feature. First, you'll have to form a query in search form. To do this, enter date that searched rates must correspond to as *current on*, *old for*, *future for*, *current+future for* or *all*, and code for your search (use \* as wildcard). Then press "Search" button. System will find all rates that correspond to specified criteria and display them. Then click on "Mass Edit" link at the bottom of the window and proceed with respective action.

Operation type is selected under *Action* drop-menu:

- *insert as new rates* – edited rates will be added as new ones, that will replace existant under specified conditions (for example, change of rate and effective date);
- *update current rates* – edited rates will have their values updated with new ones;
- *delete found rates* – all found rates will be deleted.

After you selected desired action, you can change next available rate parameters (unavailable for *delete found rates* action):

Parameter	Description
<b>Rate</b>	Change the rate value. Available options: preserve, set to, inc for, dec for. You can increase or decrease the value either by fixed number or percent. To increase or decrease by percent enter % sign before desired number
<b>Setup Fee</b>	Change setup fee value. Available options: preserve, set to, inc for, dec for. You can increase or decrease the value either by fixed number or percent. To increase or decrease by percent enter % sign before desired number
<b>Grace Time</b>	Change <i>grace time</i> value. Available options: preserve, set to
<b>Min. Time</b>	Change <i>minimal time</i> value. Available options: preserve, set to
<b>Interval</b>	Change <i>tarification interval</i> value. Available options: preserve, set to
<b>Effective Date</b>	Change <i>rate start date</i> value. Available options: preserve, set to
<b>End Date</b>	Change <i>rate end date</i> value. Available options: preserve, set to
<b>Profile</b>	Change rate profile. Available options: preserve, set to

After all desired changes press "Preview" button to preview the results, and "Process" button to accept them.



## Knowledge Base Articles

- [Jurisdictional Billing](#)
- [US Billing & Taxation](#)

# Extra Rates

This tab allows you to apply an "extra charge" for calls belonging to defined origination group. To utilize this function, first you should go to *Configuration – Client Groups* and create an *Orig* type group. Then you need to decide which calls will belong to that group by either assigning this groups to customer's origination account, or by using *Presets* and *Traffic Processing*. After this is decided, simply access *Extra* tab in *Rate Tables* section and specify an extra charge that will be used for all calls in defined origination group by clicking on respective "Add Rate" button.

Screenshot: Extra tab - Rate Tables section

Orig Groups	Profile	Extra Rate
Test_OrigGroup	all time	10.000

Field	Description
<b>Group</b>	Define an account group which will have an "extra charge" for calls
<b>Profile</b>	Specify a time profile for the current rate
<b>Extra Rate</b>	Set extra rate for calls of defined account group

# Simulate

Rates analysis section gives you possibility to see exactly which rate will be used for specified DNIS, and also resulting cost, if such call would take place:

Screenshot: Simulating calls

The screenshot shows the 'Simulate' tab in a software interface. On the left, there are input fields for 'Number', 'Date' (set to 2014-07-09 10:50:52), and 'Duration' (set to 60 sec). A blue 'Process' button is located below these fields. On the right, a message box with an information icon contains the text 'Please select parameters for report'. The top navigation bar includes 'Rates', 'Extra', 'Simulate', 'Rate Formulas', 'Import', 'Export', and 'Parameters', with 'Custom-ExaServe [USD]' on the far right.

Description of analyze parameters is the following:

Field	Description
<b>Number</b>	Specify number for simulation
<b>Date</b>	Specify the call date
<b>Duration</b>	Specify call duration in seconds

After specifying all necessary parameters, press "Process" button and wait for query results, that is a table with information concerning simulated call:

Screenshot: Call simulating results

The screenshot shows the 'Simulate' tab with the 'Process' button clicked. The input fields now show 'Number: 1204', 'Date: 2014-07-09 11:01:39', and 'Duration: 60 sec'. The main area displays a table with the following data:

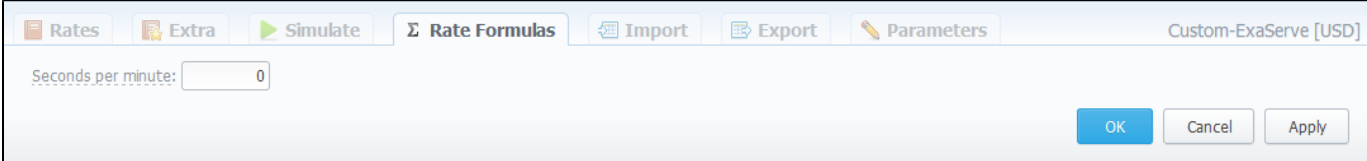
Code	Call Cost	Effective Date	Rate	Parameters	Billed Time
<b>1204</b> CANADA MANITOBA PROPER	<b>0.0010 USD</b>	09/04/2014 21:00:00 +0000	0.0010 USD	1 / 1 / 0	60 sec

Column	Description
<b>Code</b>	A destination code
<b>Call Cost</b>	Cost of a call
<b>Effective Date</b>	Rate start date
<b>Rate</b>	Price per 1 minute of call
<b>Parameters</b>	Information of minimal time of call that will be tarificated, tarification interval and time interval below which call is not tarificated
<b>Billed Time</b>	Billed time (minimal time of billing increment)

# Rate Formulas

This section allows you to set the amount of seconds in one minute that will be used during calls' billing process. You need to set this amount in "Seconds per minute" field, then click "Apply" or "OK" button.

Screenshot: Rate Formulas section



# Import

## On this page

- [Import Section Tab](#)
- [Rates Importing Process](#)
  - [Step 1. Selecting File and Specifying Additional Parameters](#)
  - [Step 2. Recognizing The File](#)
- [Import History](#)
- [Mass Import](#)

## Import Section Tab

Allows rates importing from Microsoft Excel \*.CSV or \*.XLS files (Screenshot).

Screenshot: Rate tables Import section tab

## Rates Importing Process

Whole import process can be logically divided in two steps.

### Step 1. Selecting File and Specifying Additional Parameters

Open Import tab and select a file to import on your HDD.

This step also allows you to edit all information that was not present in import file (system will automatically paste most commonly used values), and set some configurations in regards to import process. These settings are following:

Field	Description
<b>Select file to import</b>	Select an import file
<b>Fields Delimiter</b>	Specify here a delimiter symbol
<b>Rate Group</b>	A group to which the imported rate belongs (mostly used for importing rates for Jurisdictional billing module)
<b>Date Format</b>	Specify date format of imported file. Please note that autodetection of date and time can be performed with files that contains one of the date and time formats listed below: <ul style="list-style-type: none"> <li>• %d-%m-%Y = 28-12-2002</li> <li>• %Y-%m-%d = 2002-12-28</li> <li>• %m/%d/%Y = 12/28/2002</li> <li>• %d.%m.%Y = 28.12.2002</li> <li>• %Y/%m/%d = 2002/12/28</li> <li>• %Y%m%d = 20021228</li> <li>• %Y-%m = 2002-12</li> <li>• %H:%M:%S = 21:13:14</li> <li>• %H.%M.%S = 21.13.14</li> </ul>

<b>Custom date format</b>	If defined, this format will be used for date parsing instead of "Date Format" field	
<b>On duplicate rates</b>	Decide what to do if a duplicate is found	
	• <b>Update with latest value</b>	If multiple duplicates were found, the last value is stored
	• <b>Skip duplicate rows</b>	If there are multiple duplicates, only first value will be stored
	• <b>Alert me about duplicates</b>	If duplicate is found, VCS will alert you about their presence
<b>"Full A-Z import" Checkbox</b>	If enabled, all existing rates which are not presented in the current importing process will be closed by specified <i>Close date</i>	
<b>Close date</b>	End date of existing rates which are not presented in the current importing process. Please notice this field works only if "Full A-Z import" checkbox is enabled	
<b>Import template</b>	Select the rate table template for rates importing	
<b>Deck update mode</b>	Decide how you want a code deck to be updated	
	• <b>Do not import anything</b>	Leave selected code deck unchanged
	• <b>Import only not existing codes</b>	Code deck will be updated with codes and their names, if it doesn't currently have this information
	• <b>Import all codes (update existing)</b>	Code deck will be updated and codes will be updated with code names taken from file with overwriting of existent code names
• <b>Import all codes (purge code deck first)</b>	Code deck is fully cleared and then all codes and code names are imported from file	
<b>Code Deck</b>	Select a code deck that you want to update with above settings (note that code deck specified settings here will only be available if you are importing file which contains <i>code names</i> in addition to <i>codes</i> )	
<b>On errors</b>	Decide, what system should do if file contains an error (data inconsistency, incorrect symbols etc.)	
	• <b>Import correct rows and show all found errors</b>	Import error-free rows and display the list of errors, if any
	• <b>If errors are found, abort import and show all errors</b>	If any error is found, stop import and display a list of errors
<b>Notificator Code Deck</b>	Specify code decks, that will be used for the next rates notification	
<b>"Enable confirm mode" Checkbox</b>	Enables confirmation mode for imported rates. While in this mode, all rates that are imported into system, will have to additionally pass confirmation check by billing operator	
<b>"Optimize Codes" Checkbox</b>	Enable for shortening codes of the code range which are importing	

After selecting a file and specifying all additional parameters click "Process>>" button.

## Step 2. Recognizing The File

System will recognize the file, and display few first rows of it. If there's need, make changes to the recognition of data (for instance, you can switch columns, if guess was not precise), and press "Process>>" again. Also on this step you can save the importing rate table as a template for further usage in importing or exporting process, you only need to press the "Save Template" button, specify a template name in the pop-up window and press "Save" button (Screenshot).

Screenshot: Rates importing process. Step 2

Rates Extra Simulate Rate Formulas **Import** Export Parameters Custom-ExaServe [USD]

**DEFAULT VALUES**

Effective Date: 2014-07-09 00:00:00 + End Date: Profile: Rate: 0 Min Time: 1 Interval: 1 Grace Time: 0 Setup Fee: 0 Notes:

**ROWS AND COLUMNS SELECT**

Code	Code Name	Rate	Skip
1	USA	2,0000	<input type="checkbox"/>
1201555	USA DQ	2,1000	<input type="checkbox"/>
120756	USA PREMIUM	2,5000	<input type="checkbox"/>
34	SPAIN	0,4000	<input type="checkbox"/>
380	UKRAINE	0,9000	<input type="checkbox"/>
7	RUSSIA	0,5000	<input type="checkbox"/>

After you press "Process>>" for the last time, system will start importing process. When progress-bar reaches 100%, your import is done! Don't forget to confirm the rates, if you chose to import in "confirm mode".



Please pay your attention during specifying the *Effective Date* and *End Date* that by default the *Time zone* is *UTC (+0000)*.

## Import History

If you already imported at least one file, during new importing process you will also see the history table. This table consists of files which were imported and represents some information about them (Screenshot).

Screenshot: Import History Table

IMPORT HISTORY ( LAST IMPORT OPERATIONS )

Rows 1 – 5 of 5 Pages: 1 ▾ 1


Date	Login	File	New	Increased	Decreased	Unchanged	Pending	Closed	Total
2014-07-14 16:10:13+03	admin	arustel cropped.xls	0	0	0	7	7	0	7
2014-07-14 16:08:19+03	admin	arustel cropped.xls	1	0	0	7	0	0	8
2014-07-14 16:07:26+03	admin	arustel cropped.xls	2	3	2	0	0	6089	7
2014-07-10 18:01:13+03	admin	00 wholesale full.xls	0	0	0	6094	0	0	6094
2014-07-10 18:00:11+03	admin	00 wholesale full.xls	6094	0	0	0	0	0	6094

Column	Description
<b>Date</b>	Date and time when the file was imported
<b>Login</b>	By whom the importing process was made
<b>File</b>	The name of an importing file
<b>New</b>	The number of new rates which was added from the file
<b>Increased</b>	The number of rates, that have been increased
<b>Decreased</b>	The number of rates, that have been decreased
<b>Unchanged</b>	The quantity of rates, that remained unchanged
<b>Pending</b>	The number of rates, that should be additionally confirmed
<b>Closed</b>	The quantity of rates, that were closed by specified "End Date" or using "Full A-Z import" functionality
<b>Total</b>	The total amount of imported rates

# Mass Import

If you need to upload several rates tables return to the main *Rate Tables* list and check boxes of required tables and then click "*Import*" button. After keep the procedure in the same as a usual rates importing.

Screenshot: Mass rates importing.

 **Import**

Code	Code Name	Description	Rate table
		<b>RATE TABLE: FGJ</b>	
		Imported rows: <b>13449</b> ; Rows with errors: <b>0</b>	
		<b>RATE TABLE: TESTTC</b>	
		Imported rows: <b>13449</b> ; Rows with errors: <b>0</b>	
		<b>RATE TABLE: TESTTC2_LONG_LONG_LONG_LONG_LONG_LONG_LONG_LONG_JOHNSON</b>	
		Imported rows: <b>13449</b> ; Rows with errors: <b>0</b>	



# Export

## On this page

- [Export Section Tab](#)
- [Rates Exporting Process](#)
  - [Step 1. Specifying Filter Parameters](#)
  - [Step 2. Specifying Date And Format Options](#)
  - [Step 3. Selecting Columns To Export](#)

## Export Section Tab

Rates exporting to Microsoft Excel \*.CSV or \*.XLS files (Screenshot).

You can use same search engine as provided on Rates tab, to decide which rates you would like to export (including confirmed/unconfirmed, old, current, future or current+future).

Screenshot: Rates exporting window

The screenshot shows the 'Export' window in a software application. The window title is 'Custom-ExaServe [USD]'. The interface is divided into several sections:

- TEMPLATE SETTINGS:** Includes an 'Export Template:' dropdown menu and a 'Save' button.
- STEP 1: SPECIFY FILTER PARAMETERS:** Contains fields for 'Code / Name', 'Rate Group' (set to 'Default'), 'Changes', 'Imported File', 'Confirmed', 'Rate', 'Min Time', 'Interval', 'Profile', 'Setup Fee', and 'End Date'.
- STEP 2: SPECIFY DATE AND FORMAT OPTIONS:** Includes 'Last export date', 'Code Deck', 'Data format' (set to 'Excel CSV'), 'Date Format', 'Codes Output' (set to 'separate rows'), and 'Fields Delimiter' (set to ';'). There are also checkboxes for 'with headers row' (checked) and 'codes from code deck'.
- STEP 3: SELECT COLUMNS TO EXPORT:** A list of 14 columns with dropdown menus for selection. Column #1 is 'Code', Column #2 is 'Code Name', and Column #3 is 'Rate'. The rest are empty.
- HEADER TEXT** and **FOOTER TEXT** sections are present but empty.
- At the bottom right, there are 'Process' and 'Cancel' buttons.

## Rates Exporting Process

Whole export process can be logically divided in three steps.

### Step 1. Specifying Filter Parameters

Here you need to fill next fields:

Field	Description
<b>Code / Name</b>	Specify code / name of exporting file
<b>Rate Group</b>	Specify rate group in case of jurisdictional billing
<b>Imported File</b>	Select imported file
<b>Changes</b>	Select changes ( <i>Decreased, Increased, Not changed, New</i> )

<b>Confirmed</b>	Select, confirmed your file or not
<b>Rate</b>	Specify price interval
<b>Setup Fee</b>	Specify setup fee interval
<b>Min Time, sec</b>	Specify minimal time interval of tarificated calls
<b>Interval, sec</b>	Specify tarification interval
<b>Profile</b>	Select time profile ( <i>all time, business time, non-business time, weekends</i> )
<b>Grace Time, sec</b>	Specify grace time interval

## Step 2. Specifying Date And Format Options

Fill here next fields:

Field	Description	
<b>Last export date</b>	Parameter that affects "Rate changes" field (depending on it exported rates will be marked as <i>new, changed, deleted</i> etc)	
<b>Date Format</b>	Date format in your export file. Syntax is following: for example, if you put "%d-%m-%Y" here, your date will look like 25-05-2011	
<b>Code Deck</b>	Select a code deck here to rewrite code names in export file if needed	
<b>Codes Output</b>	Specify how codes should be displayed. There are few options	
	<ul style="list-style-type: none"> <li><b>Separate rows</b></li> </ul>	Each code is placed into single row
	<ul style="list-style-type: none"> <li><b>Delimited list</b></li> </ul>	Codes are grouped by code name in a row, for example: 5510,5511,5512
<ul style="list-style-type: none"> <li><b>Ranges list</b></li> </ul>	Codes are grouped by code name into ranges plus delimiter, for example: 5510-5512, 5515	
<b>Data Format</b>	Specify output file format, XLS or CSV	
<b>Fields Delimiter</b>	Set delimiter for fields if you've chosen CSV	
<b>"With headers row" Checkbox</b>	Include column names into the file	
<b>"Codes from code deck" Checkbox</b>	Allows to additionally filter the export, by selecting only codes which are present in specified <i>Code Deck</i>	
<b>Header text / Footer text</b>	Allows you to additionally put some text into exported file as header and footer respectively	



You may save settings as a template of Rate Notification. But note that reseller's rate notification template will be overridden by existing rate export template.

## Step 3. Selecting Columns To Export

Here you can specify columns to export. Column names are self explanatory, but please note that *Rate Changes* column holds data regarding your rate actuality (*new, changed, deleted* etc).

Press "Process" button and save exporting file when you finish setting the parameters.



**Tip:** rates sorting will be made by the very first column. For example, if you want rates to be sorted by A-Z destination name than make Code Name as first column.

note that reseller's rate notification template will be overridden by existing rate export template

# Parameters

This tab allows you to correct or change any settings that you entered when you created current Rate Table, such as its *Name*, *Reseller*, *Currency* etc.. Also here you can enable "Automatic Email Import" checkbox which allows automatic rate tables import from emails (Screenshot):

Screenshot: Parameters tab

Section	Fields description	
<b>General Rate Tables Settings</b>	General rate table information	
	<ul style="list-style-type: none"> <li><b>Name</b></li> </ul>	A name of the rate table
	<ul style="list-style-type: none"> <li><b>Reseller</b></li> </ul>	A reseller whom this rate table belongs to
	<ul style="list-style-type: none"> <li><b>Code Deck</b></li> </ul>	A code deck for current rate table
	<ul style="list-style-type: none"> <li><b>Currency</b></li> </ul>	A currency specified for this rate table
	<ul style="list-style-type: none"> <li><b>"Rate with taxes" checkbox</b></li> </ul>	Enabled checkbox means that taxes are already included in rate value. Disabled checkbox means that taxes are not included in rate value and will be added as an additional invoice item
<ul style="list-style-type: none"> <li><b>Description</b></li> </ul>	Additional information concerning the current rate table	
<b>"Automatic Email Import" Checkbox</b>	Data used for <a href="#">automatic rates import</a>	
<b>Table Information</b>	Information concerning the date of the rate table creation and last editing	

# Automatic Email Import

## On this page

- ["Automatic Email Import" Checkbox](#)
- [Creating Import Template](#)

## "Automatic Email Import" Checkbox

Allows automatically importing rate tables from emails, i.e. the rate table data will be automatically updated by data from emails, taken from specified email-box, using defined template. This function can be enabled in *Rate tables - Parameters tab* (Screenshot below), you need to fill in all fields in that section.

Screenshot: "Automatic Email Import" checkbox

The screenshot shows the 'Parameters' tab for a rate table named 'Custom-ExaServe'. The 'AUTOMATIC EMAIL IMPORT' checkbox is checked. The fields to be filled are: Login, Password, Sender Match, Subject Match, and Import Template. Below these fields is the 'TABLE INFORMATION' section, which displays 'Created on: 04/02/2013 15:57:23 +0200' and 'Last edited on: 08/28/2014 12:56:02 +0200'. At the bottom right, there are 'OK', 'Cancel', and 'Apply' buttons.

Field	Description
<b>Login</b>	Specify the login of an email box
<b>Password</b>	Enter a password of the specified email  <div style="border: 1px solid yellow; padding: 5px; display: inline-block;">  Please note that the password should contain at least 10 symbols.         </div>
<b>Sender Match</b>	Specify a sender name or email address for searching
<b>Subject Match</b>	Define a regular expression for searching of specific mail titles
<b>Import Template</b>	Specify a rate table template

Also you need to configure mail server in *Reseller - Email Rates Import Settings* section (Screenshot).

Screenshot: *Edit Reseller* section

Field	Description
Host	Specify an email server. Note that it should support IMAP and SSL
Port	Define a port, by default the 993 port is set

Please pay your attention that if you are using *imap.gmail.com* as *Host*, you should **turn on** access for all *external applications* in your email settings.

## Creating Import Template

Please note that *Automatic Email Import* will not work without specified *Import template*.

The process of creating an *Import template* is quite simple.

Firstly, you should import at least one rate table.

Secondly, during importing a rate table on the second step of importing process, you should click on "*Save template*" button (Screenshot below). In the pop-up window specify a template name and save it, then click "*Process>>*" button. After the importing process will be finished, a new rate table template will be added and seen in templates list in respective field.

*Screenshot: Rates importing process. Step 2*

Rates Extra Simulate Rate Formulas **Import** Export Parameters Custom-ExaServe [USD]

**DEFAULT VALUES**

Effective Date: 2014-07-09 00:00:00 | End Date: | Profile: | Rate: 0 | Min Time: 1 | Interval: 1 | Grace Time: 0 | Setup Fee: 0 | Notes:

**ROWS AND COLUMNS SELECT**

Code	Code Name	Rate	Skip
1	USA	2,0000	<input type="checkbox"/>
1201555	USA DQ	2,1000	<input type="checkbox"/>
120756	USA PREMIUM	2,5000	<input type="checkbox"/>
34	SPAIN	0,4000	<input type="checkbox"/>
380	UKRAINE	0,9000	<input type="checkbox"/>
7	RUSSIA	0,5000	<input type="checkbox"/>

Template name:


 Detailed description of rate tables importing process you may find here: [Import](#)

# Invoices

## On this page

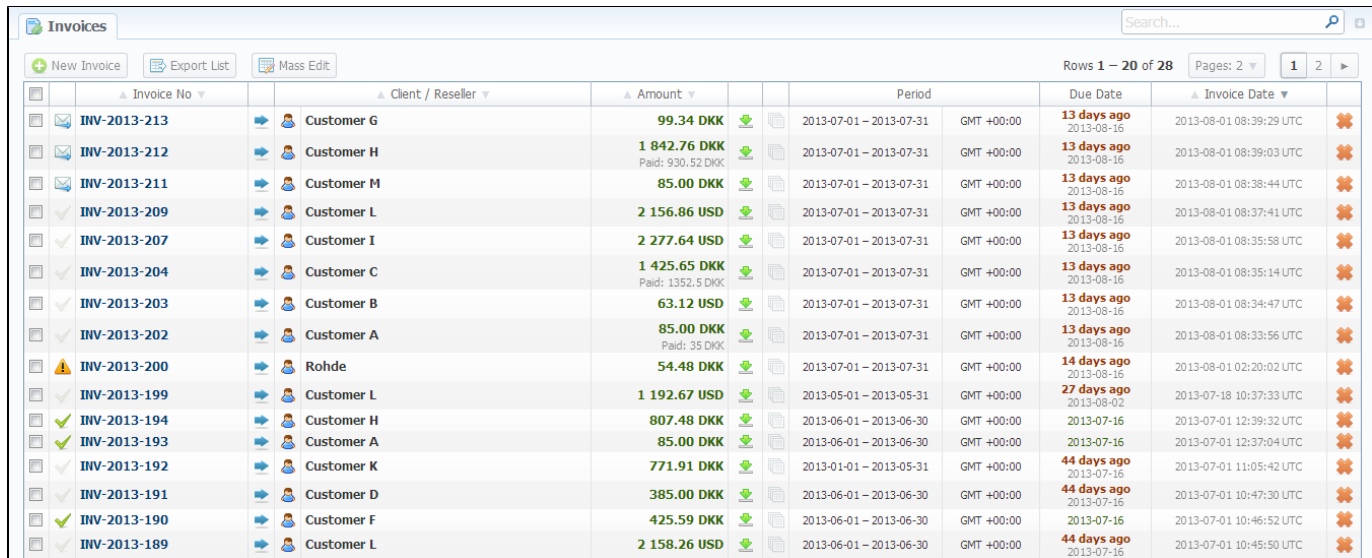
- [Invoices List](#)
- [Creating New Invoice](#)
- [Knowledge Base Articles](#)

## Invoices List

Allows you to create and manage all outgoing and incoming invoices. By pressing  button you can download and view respective invoice file, and by pressing "Export List" you can download currently stored invoices list as CSV file.

Main window is presented as list:


Screenshot: Invoices section main window









Invoice No	Client / Reseller	Amount	Period	Due Date	Invoice Date
INV-2013-213	Customer G	99.34 DKK	2013-07-01 - 2013-07-31	13 days ago	2013-08-01 08:39:29 UTC
INV-2013-212	Customer H	1 842.76 DKK Paid: 930.52 DKK	2013-07-01 - 2013-07-31	13 days ago	2013-08-01 08:39:03 UTC
INV-2013-211	Customer M	85.00 DKK	2013-07-01 - 2013-07-31	13 days ago	2013-08-01 08:38:44 UTC
INV-2013-209	Customer L	2 156.86 USD	2013-07-01 - 2013-07-31	13 days ago	2013-08-01 08:37:41 UTC
INV-2013-207	Customer I	2 277.64 USD	2013-07-01 - 2013-07-31	13 days ago	2013-08-01 08:35:58 UTC
INV-2013-204	Customer C	1 425.65 DKK Paid: 1352.5 DKK	2013-07-01 - 2013-07-31	13 days ago	2013-08-01 08:35:14 UTC
INV-2013-203	Customer B	63.12 USD	2013-07-01 - 2013-07-31	13 days ago	2013-08-01 08:34:47 UTC
INV-2013-202	Customer A	85.00 DKK Paid: 35 DKK	2013-07-01 - 2013-07-31	13 days ago	2013-08-01 08:33:56 UTC
INV-2013-200	Rohde	54.48 DKK	2013-07-01 - 2013-07-31	14 days ago	2013-08-01 02:20:02 UTC
INV-2013-199	Customer L	1 192.67 USD	2013-05-01 - 2013-05-31	27 days ago	2013-07-18 10:37:33 UTC
INV-2013-194	Customer H	807.48 DKK	2013-06-01 - 2013-06-30	2013-07-16	2013-07-01 12:39:32 UTC
INV-2013-193	Customer A	85.00 DKK	2013-06-01 - 2013-06-30	2013-07-16	2013-07-01 12:37:04 UTC
INV-2013-192	Customer K	771.91 DKK	2013-01-01 - 2013-05-31	44 days ago	2013-07-16 2013-07-16 11:05:42 UTC
INV-2013-191	Customer D	385.00 DKK	2013-06-01 - 2013-06-30	44 days ago	2013-07-16 2013-07-16 10:47:30 UTC
INV-2013-190	Customer F	425.59 DKK	2013-06-01 - 2013-06-30	44 days ago	2013-07-16 2013-07-16 10:46:52 UTC
INV-2013-189	Customer L	2 158.26 USD	2013-06-01 - 2013-06-30	44 days ago	2013-07-16 2013-07-16 10:45:50 UTC

It displays all created invoices. Description of list's columns is following:

Column Name	Description
Invoice No	Number of invoice
Client / Reseller	Name of client or reseller with corresponding icon
Amount	Total invoice sum
Period	Invoice period
Due Date	Shows due date for specific invoice
Invoice Date	Invoice creation date

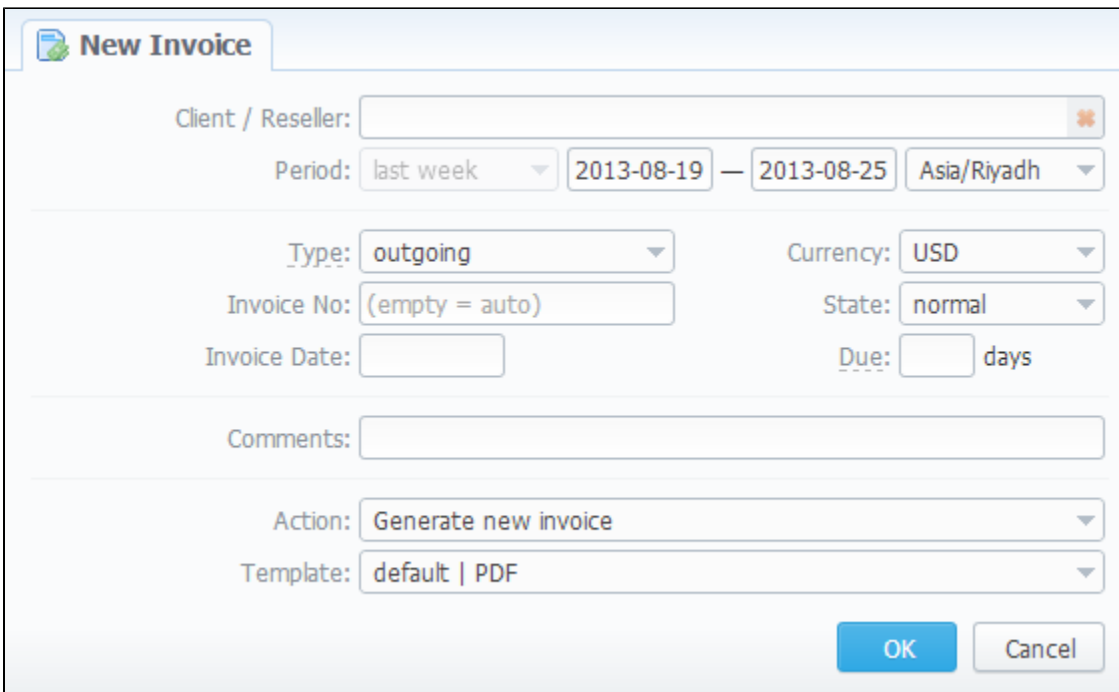
Icon	Description
	This icon tells you that respective invoice was paid in full. If the invoice is not fully paid, this icon will be grey

	This icon defines <i>to verify state</i> and tells you that this invoice is awaiting to be checked before it will be sent to client
	This icon defines <i>to send state</i> , and this means that invoice is in sending queue
	Outgoing invoice
	Incoming invoice
	By pressing this icon you can download and view respective invoice file
	By pressing this icon you can delete respective invoice

## Creating New Invoice

Invoices are created through “*New Invoice*” button. When you press it, a pop-up window will show up:

Screenshot: *Create Invoice window*



Here you can select a client or reseller, invoice currency, invoice number (leave this field empty for automatic number generation) and select the state of this newly created invoice (*to send, to verify or normal*). In “*Invoice Date / Due (days)*” field you can specify the actual invoicing date and payment due in days. Also you can “*Generate new invoice*” or “*Attach existing invoice*”.

When “*Attaching existing invoice*” you can only additionally specify the invoice destination (incoming or outgoing), specify the sum of the invoice and attach the invoice file. This feature is mainly used when your invoice was generated by some other third-party software.

When “*Generate new invoice*” is selected, you possess the following invoicing instruments:

- **Period** - specify the period of statistics that will be included into invoice;
- **Output in** – specify the resulting file format, PDF or XLS;
- **By template** – select a template that should be used to create current invoice. These templates define your invoice contents and look and are created and managed in *Configuration – Invoices Templates* section.





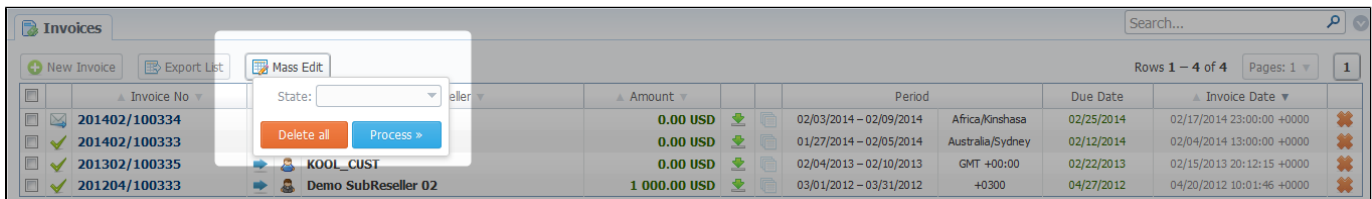
**Tip:** All automatically created invoices will be in *check* state. To send the invoice to client you will need to change its state to *send* state manually!



When generating invoices under *one reseller* for *different clients*, it is recommended to wait till the invoice for one client will be generated and only after that start generating the other one for another client, i.e. avoid generating them simultaneously. That is important for avoiding the situation of having *invoices with identical number* in the system.

To easily change invoices state, use **"Mass Edit"** button (Screenshot below). First of all, you need to select invoices for which state should be changed, then specify state from drop down list of respective *"State"* field, press *"Process"* button for applying the change. Also using the following window you may delete all existing invoices by pressing *"Delete all"* button.

Screenshot: Invoices "Mass Edit" window



## Knowledge Base Articles

- [Incoming VS Outgoing Invoices](#)
- [Method of calculating and rounding values for Invoices](#)
- [Why generated invoice is not sent?](#)
- [Why there is no logo in generated invoice?](#)

# Transactions

## On this page

- [Transactions List](#)
- [Adding New Payment](#)
- ["Import Transactions" and "Export List" Buttons](#)

## Transactions List

This section allows you to perform financial operations with client's / reseller's balances and also track all balance changes within system. Main window is displayed as a list of performed payments:

Screenshot: Transactions section main window

ID	Payment Account	Client / Reseller	Amount	Taxes cost	Comments	Transaction Date
6686	Charge: Products	Customer F	-85.00 DKK	0.00 DKK	Package periodical payment: CP - Go - 2 Lines + 10 Numbers	30/08/2013 12:06:14 AST
6685	Charge: Products	Customer J	-7.00 USD	0.00 USD	Package periodical payment: EC - Go - Extra 10 Numbers	30/08/2013 12:06:14 AST
6684	Charge: Products	GO-Demo1	-85.00 DKK	0.00 DKK	Package periodical payment: CP - Go - 2 Lines + 10 Numbers	30/08/2013 12:06:14 AST
6683	Payment: Paypal AccA	Booth 01	15.00 USD	0.00 USD	activation	15/08/2013 13:14:35 AST
6682	Payment: Paypal AccA	Booth 04	10.00 DKK	0.00 DKK	activation	15/08/2013 13:14:27 AST
6681	Payment: Paypal AccA	Booth 02	20.00 DKK	0.00 DKK	activation	15/08/2013 13:14:14 AST
	Charge: Calls	Customer J	-0.35 USD	0.00 USD		12/08/2013 21:00:00 AST
	Charge: Calls	Vendor B	0.92 DKK	0.00 DKK		12/08/2013 21:00:00 AST
	Charge: Calls	Customer J	-0.07 USD	0.00 USD		12/08/2013 19:00:00 AST
	Charge: Calls	Vendor C	0.04 USD	0.00 USD		12/08/2013 19:00:00 AST
	Charge: Calls	Vendor B	1.66 DKK	0.00 DKK		12/08/2013 18:00:00 AST
	Charge: Calls	Customer J	-0.64 USD	0.00 USD		12/08/2013 18:00:00 AST
	Charge: Calls	Vendor B	3.26 DKK	0.00 DKK		12/08/2013 17:00:00 AST
	Charge: Calls	Vendor D	0.00 USD	0.00 USD		12/08/2013 17:00:00 AST
	Charge: Calls	Customer J	-1.27 USD	0.00 USD		12/08/2013 17:00:00 AST
	Charge: Calls	Vendor C	0.19 USD	0.00 USD		12/08/2013 16:00:00 AST
	Charge: Calls	Customer I	-0.41 USD	0.00 USD		12/08/2013 16:00:00 AST
	Charge: Calls	Vendor D	0.14 USD	0.00 USD		12/08/2013 16:00:00 AST
	Charge: Calls	Vendor B	0.18 DKK	0.00 DKK		12/08/2013 16:00:00 AST
	Charge: Calls	Customer J	-0.07 USD	0.00 USD		12/08/2013 16:00:00 AST

Payments list columns have the following meaning:

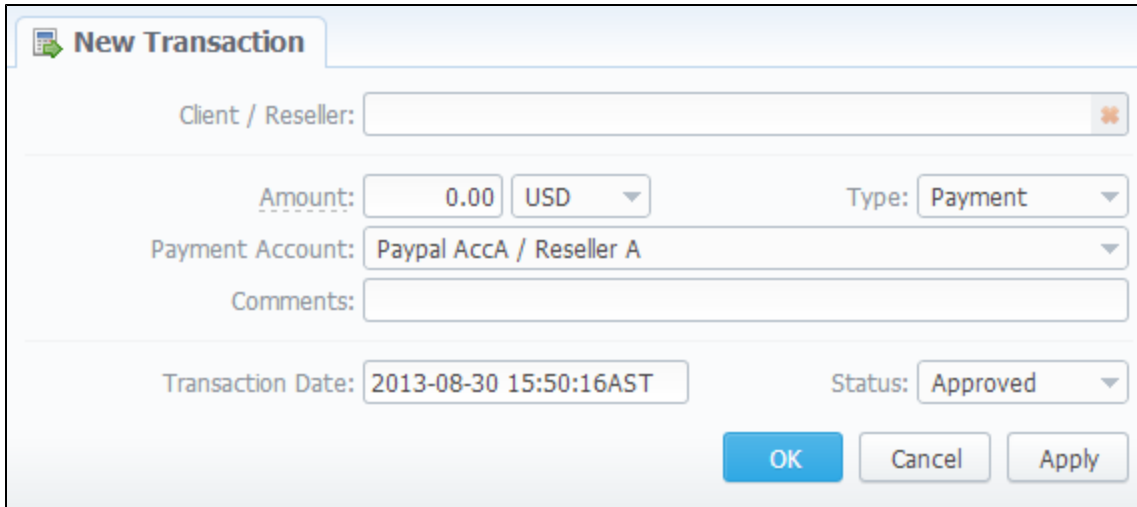
Column Name	Description
<b>ID</b>	A payment thorough ID number
<b>Payment Account</b>	Displays respective payment account, related to a performed payment or respective charge type, such as: <i>calls, products, extra charges</i> (each type has visual representation in a form of respective icon)
<b>Client / Reseller</b>	Displays the name of client or reseller that was engaged in payment operation
<b>Amount</b>	The respective payment operation sum
<b>Taxes Cost</b>	The respective taxes cost
<b>Comments</b>	Comments about respective payment
<b>Transaction Date</b>	Displays respective payment date, related to a performed payment

✔ **Tip:** The "**Group Call Charges**" field in Advanced Search panel of this section allows you to see payments and charges not only "Hourly" (like in previous versions), but also to switch to "Daily", "Weekly" and "Monthly" outlook.

## Adding New Payment

To add a payment press "*New Transaction*" button. In new window specify such parameters as: transaction date, select a client or reseller, payment account, amount, etc. and press "OK" button (Screenshot).

Screenshot: *New transaction window*



✔ **Tip:** For incoming payment select "*Payment*" operation type, for outgoing charge – select "*Charge*".

✔ **Tip:** If you change transaction *Status* in respective field from "*Approved*" to "*Pending*" when adding a payment, that payment will have to pass additional approval check by billing operator.

## "Import Transactions" and "Export List" Buttons

If you press "*Import Transactions*" button, you will be able to perform import of payments. Simply click this button and follow on-screen instructions. There are only 4 important fields that your file should include, being: customer name, payment sum, payment date and payment description.

If you press "*Export List*" button, you will be able to export all currently stored payments as CSV file.

You can edit payment properties by pressing respective transaction icon.

# Balance Report

## On this page

- [Balance Report Search Form](#)
- [Forming The Analysis Report](#)
- [Knowledge Base Articles](#)

## Balance Report Search Form

This section represents a Balance Report analysis tool. It displays full history of client's charges and payments for selected period. Main window is displayed as a search form:

Screenshot: Balance Report section main window

The screenshot shows the 'Balance Report' search form. It features a search bar with the placeholder text 'Please select parameters for report' and a 'Query' button. The form includes several filters: 'Period' (set to 'this month'), 'Client' (empty), 'Mode' (set to 'Accountant'), 'Currency' (set to 'USD'), 'Output' (set to 'Web'), and 'Group By #1' and 'Group By #2' (empty). The interface also shows a timestamp '2013-08-01 00:00:00 - 2013-08-30 23:59:59' and a location 'Asia/Riyadh'. There are 'About' and 'Get Support' links in the bottom left corner.

## Forming The Analysis Report

To form the analysis report do the following: specify period, client (leave empty field for all) and report mode: *Accountant* – builds report with data that includes received payments and issued invoices (this effectively builds *Accountant* balance, useful data for postpaid), or *Live Balance* – builds report by received payments and call processing charges (this effectively builds *Current* balance, useful data for prepaid). Press “Query” button when done. The analysis report would look like on screenshot below:

Screenshot: Forming the analysis report

Client	Payment Account	Document	Date	Start Balance	Debit	Credit	End Balance
				0.00 USD	7 171.26 USD	4 874.78 USD	2 296.48 USD
Rohde   DKK	Accounts Receivable	Invoice INV-2013-184   DKK	01/07/2013 05:20:03 AST	0.00 USD	59.41 USD 222.77 DKK		59.41 USD
Customer A   DKK	Paypal AccA / Reseller A	Payment 4539 Paid with paypal:323-54	01/07/2013 10:37:49 AST	59.41 USD		100.00 USD 375.00 DKK	-40.59 USD
Customer K   DKK	Accounts Receivable	Invoice INV-2013-185   DKK	01/07/2013 13:08:30 AST	-40.59 USD	494.69 USD 1 855.08 DKK		454.09 USD
Customer B	Accounts Receivable	Invoice INV-2013-186	01/07/2013 13:11:34 AST	454.09 USD	105.32 USD		559.41 USD
Customer M   DKK	Accounts Receivable	Invoice INV-2013-187   DKK	01/07/2013 13:12:41 AST	559.41 USD	102.67 USD 385.00 DKK		662.08 USD
Customer I	Accounts Receivable	Invoice INV-2013-188	01/07/2013 13:44:54 AST	662.08 USD	2 398.26 USD		3 060.34 USD
Customer L	Accounts Receivable	Invoice INV-2013-189	01/07/2013 13:45:50 AST	3 060.34 USD	2 158.26 USD		5 218.60 USD
Customer F   DKK	Accounts Receivable	Invoice INV-2013-190   DKK	01/07/2013 13:46:52 AST	5 218.60 USD	113.49 USD 425.59 DKK		5 332.09 USD
Customer D   DKK	Accounts Receivable	Invoice INV-2013-191   DKK	01/07/2013 13:47:30 AST	5 332.09 USD	102.67 USD 385.00 DKK		5 434.76 USD
Customer K   DKK	Accounts Receivable	Invoice INV-2013-192   DKK	01/07/2013 14:05:42 AST	5 434.76 USD	205.84 USD 771.91 DKK		5 640.60 USD
Customer A   DKK	Accounts Receivable	Invoice INV-2013-193   DKK	01/07/2013 15:37:04 AST	5 640.60 USD	22.67 USD 85.00 DKK		5 663.27 USD
Customer H   DKK	Accounts Receivable	Invoice INV-2013-194   DKK	01/07/2013 15:39:32 AST	5 663.27 USD	215.33 USD 807.48 DKK		5 878.59 USD
Customer H   DKK	ExaCaller	Payment 5400   DKK ACZ354-4234	16/07/2013 16:08:19 AST	5 878.59 USD		3 076.53 USD 11 537.00 DKK	2 802.06 USD
Customer L	Accounts Receivable	Invoice INV-2013-199	18/07/2013 13:37:33 AST	2 802.06 USD	1 192.67 USD		3 994.73 USD
Customer I	Authorize.Net ACC B / Reseller B	Payment 5684 Check Payment	21/07/2013 13:54:53 AST	3 994.73 USD		1 503.05 USD	2 491.68 USD

Report fields description:

Column Name	Description
-------------	-------------

<b>Client</b>	Name of client/reseller/calling card/call shop for that current operation is assigned to
<b>Payment Account</b>	Displays respective payment account, where performed payment was assigned
<b>Document</b>	Which document an operation corresponds to (invoice 100, for example)
<b>Date</b>	Operation date
<b>Start Balance</b>	Start client's balance prior to respective operation
<b>Debit</b>	Operation sum, that has positive income (incoming payment / invoice etc)
<b>Credit</b>	Operation sum, that has negative income (outgoing payment / invoice etc)
<b>End Balance</b>	Final client's balance after respective operation



**Tip:** To get information sorted by multiple clients, please select *Group by: Client* setting. You can do the same for *Payment Accounts* as well.

## Knowledge Base Articles

- [Why are there differences between reports?](#)

# Resellers

## On this page

- [Resellers List](#)
- [Adding New Company](#)
  - ["Fraud Protection" checkbox](#)
- [Adding New Manager](#)
- [Reseller Removal](#)
- [Custom Fields](#)
- [Rates Notificatons](#)
- [Configuring Mail Templates](#)
  - [Configuration Syntax Concerning Client Data](#)
  - [Configuration Syntax Concerning Company/Reseller Data](#)
  - [Configuration Syntax for Mail Template: Invoice](#)
  - [Configuration Syntax for Mail Template: Low Balance Notification](#)
  - [Configuration Syntax for Mail Template: Rates Notificator](#)
- [Knowledge Base Articles](#)

## Resellers List

This section allows you to specify the information about your company and make use of *Reseller and Agent features*. Main window of this section is presented on screenshot:

Screenshot: Resellers section main window



ID	Name	Available Balance	Clients	Cards	Call Shops
3	<b>Company Name</b>	No Limit USD	8	20	1
110	<b>Reseller</b>	No Limit USD	7	0	0
14	<b>Reseller_A</b>	10 000.00 USD	8	50	3
92	Man_2		0	0	0
15	<b>Reseller_123</b>	No Limit USD	0	0	0
16	<b>Reseller_B</b>	No Limit USD	1	0	0
19	Man_1		0	0	0
20	Man_2		1	0	0

## Adding New Company

To add a company, press "New Company" button, and a window with Reseller's properties will open (Screenshot down below).

Screenshot: Adding new reseller

**New Reseller**

**SYSTEM INFORMATION**

Name:

Parent:

Currency:

Status:

Tax Profile:

VoIP Gateways:

**TERMINATOR SETTINGS**

TERM Rates:

TERM Capacity:

**FRAUD PROTECTION**

Notification frequency:

Skip digits:

MAIL TEMPLATE: INVOICE

MAIL TEMPLATE: PAYMENT REMINDER NOTIFICATION

MAIL TEMPLATE: LOW BALANCE NOTIFICATION

MAIL TEMPLATE: RATES NOTIFICATOR

**ORIGINATOR SETTINGS**

Allowed Credit:  USD

ORIG Rates:

Routing Plan:

ORIG Capacity:

**INVOICING INFORMATION**

Date:

Template:

No. Tpl:

Last No:

**EMAIL RATES IMPORT SETTINGS**

Host:

Port:

**CONTACT INFORMATION**

E-mail:

Postal Address:

Tax ID:


Reg ID:

Bank Account:

**COMPANY LOGO**

No file chosen

Section	Fields Description
<b>System Information</b>	General information about client
	<ul style="list-style-type: none"> <li><b>Name</b>: A resellers' name</li> </ul>
	<ul style="list-style-type: none"> <li><b>Parent</b>: Select a parent for this reseller</li> </ul>
	<ul style="list-style-type: none"> <li><b>Currency</b>: Preferred currency for rates and invoices</li> </ul>
	<ul style="list-style-type: none"> <li><b>Status</b>: Current reseller status</li> </ul>
	<ul style="list-style-type: none"> <li><b>Tax Profile</b>: Select a tax profile, that will be used for this reseller</li> </ul>
<b>Originator Settings</b>	<ul style="list-style-type: none"> <li><b>VoIP Gateways</b>: Select respective gateways that are allowed to this reseller</li> </ul>
	Current reseller's billing settings are specified here
	<ul style="list-style-type: none"> <li><b>Allowed Credit</b>: Enter a credit value for your reseller here</li> </ul>
	<ul style="list-style-type: none"> <li><b>ORIG Rates</b>: Rates for incoming calls from customers under current reseller (by which you sell route to the reseller). Requires resellers billing mode enable</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Routing Plan</b></li> </ul>	Default routing plan for customers of this reseller, if no other specified in client profile
	<ul style="list-style-type: none"> <li>• <b>ORIG Capacity</b></li> </ul>	Origination capacity from this reseller summed for all clients that belong to him. Leave this field empty for unlimited capacity
<b>Terminator Settings</b>	Current reseller's billing settings are specified here	
	<ul style="list-style-type: none"> <li>• <b>TERM Rates</b></li> </ul>	Rates for outgoing calls to providers under this reseller (by which you buy from the reseller). Requires resellers billing mode enable
	<ul style="list-style-type: none"> <li>• <b>TERM Capacity</b></li> </ul>	Termination capacity to this reseller summed for all clients that belong to him. Leave this field empty for unlimited capacity
<b>Invoicing Information</b>	Current reseller's invoicing settings are specified here	
	<ul style="list-style-type: none"> <li>• <b>Date</b></li> </ul>	Allows you to select how system sets invoicing date: <ul style="list-style-type: none"> <li>• <b>Real date</b> – sets invoicing date to actual invoicing date</li> <li>• <b>Last day</b> – sets invoicing date to date of last day of invoicing period</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Template</b></li> </ul>	Select default template to be used with this reseller's clients
	<ul style="list-style-type: none"> <li>• <b>No Tpl</b></li> </ul>	Allows to define default format of invoice's name
	<ul style="list-style-type: none"> <li>• <b>Last No</b></li> </ul>	Define last used invoice number here
<b>"Fraud Protection" checkbox</b>	Enables/disables administrator notification in case of multiple simultaneous calls made to the same number from the current reseller.	
	 Please note that all notifications can be found in <i>System - Events Log</i> section. If you want to receive them on exact email, go to <i>System - Events Log - Configuration</i> section, here specify an email and tick the "A" checkbox (stands for: Alerts) of "RADIUS: Fraud Protection" service, then click "Update" button for saving the changes.	
	Here you need to specify the following:	
	<ul style="list-style-type: none"> <li>• <b>Notification frequency</b></li> </ul>	Set the time period in seconds between sent notifications (minimum interval should be greater or equal to 0 sec)
	<ul style="list-style-type: none"> <li>• <b>Skip digits</b></li> </ul>	Define amount of the last number digits which will be ignored when determining a destination number. For instance, with one digit for ignoring, the numbers 123456 and 123457 will be considered as the same number
<b>Email Rates Import Settings</b>	Settings used for automatic import of updated rates from emails	
	<ul style="list-style-type: none"> <li>• <b>Host</b></li> </ul>	Specify an email server. Note that it should support IMAP and SSL
	<ul style="list-style-type: none"> <li>• <b>Port</b></li> </ul>	Define a port, by default the 993 port is set
<b>Contact Information</b>	Some additional information about reseller can be entered here	
	<ul style="list-style-type: none"> <li>• <b>E-mail</b></li> </ul>	Company's e-mail



<ul style="list-style-type: none"> <li>• <b>Postal Address</b></li> </ul>	Company's postal address
<ul style="list-style-type: none"> <li>• <b>Tax ID</b></li> </ul>	An ID of tax paying entity
<ul style="list-style-type: none"> <li>• <b>Reg ID</b></li> </ul>	Company's registration ID
<ul style="list-style-type: none"> <li>• <b>Bank Account</b></li> </ul>	Company's bank account info
<b>Company Logo</b>	Here you can add the file with company's logo



Please note that changes of resellers' settings will not be applied instantly. They will be automatically reloaded every 5 minutes.



Notice that *parent reseller* can assign **any routing plan and rate table** to his *sub-resellers*.

## Adding New Manager

To add a manager, press “*New Manager*” button, and in pop-up window insert required information (Screenshot down below).

Screenshot: Adding new manager.

**New Reseller**

**SYSTEM INFORMATION**

Name:

Parent:

Status:

**CONTACT INFORMATION**

E-mail:

Postal Address:

Section	Fields Description
<b>System Information</b>	General information about manager

	<ul style="list-style-type: none"> <li>• <b>Name</b></li> </ul>	A managers' name
	<ul style="list-style-type: none"> <li>• <b>Parent</b></li> </ul>	Select a parent for this manager
	<ul style="list-style-type: none"> <li>• <b>Status</b></li> </ul>	Current manager status
<b>Contact Information</b>	Some additional information about reseller can be entered here	
	<ul style="list-style-type: none"> <li>• <b>E-mail</b></li> </ul>	Manager's e-mail
	<ul style="list-style-type: none"> <li>• <b>Postal Address</b></li> </ul>	Manager's postal address

## Reseller Removal

To delete a Reseller from the system change the status from Active to Deleted in Reseller's Properties window. But pay attention that in fact a reseller will not be deleted fully, it will be put to *Archive*. To find it just choose Archive Mode in the right top under Resellers List. (Screenshot below)

Screenshot: Reseller Removal

ID	Name	Available Balance			
144	CUS_1	100.00 USD			
134	CUST1	0.00 USD	1		0
3	Demo Reseller 01	No Limit USD	16		100
6	Demo Reseller 02	10 000.00 USD	0		0
9	Demo SubReseller 02	No Limit USD	0		0
10	Demo Manager 02		0		0
140	HUSHADI_CUST	0.00 USD	1		0

## Custom Fields

Custom Field is used as custom variables: they can be added as Transaction via Extra Charges and then will be represented as readable text in invoice templates. To add new field follow next steps:

1. Click button "Add Custom Field";
2. Specify Field Key and Title for custom item: for example: "voip\_phone\_sell" as Key and "Sell of VoIP Phone" as common Title which will be visible for all clients.

Screenshot: Custom Field

Field Key	Title
voip_phone_sell	Sell of VoIP Phone

## Rates Notificatons

Rates Notifications settings in Resellers section allows to create default rate notification for clients that belongs to relative reseller.

[Edit Reseller](#) | [Custom Fields](#) | **Rates Notifications** CUS\_1

**STEP 2: SPECIFY DATE AND FORMAT OPTIONS**

Date Format:   
 Code Deck:   
 Codes Output:   
 Data format:   
 Fields Delimiter:

with headers row  
 codes from code deck

HEADER TEXT   
 FOOTER TEXT

Column #1:   
 Column #2:   
 Column #3:   
 Column #4:   
 Column #5:   
 Column #6:   
 Column #7:   
 Column #8:   
 Column #9:   
 Column #10:   
 Column #11:   
 Column #12:   
 Column #13:

You may find description of all fields below.

Field	Description
<b>Code / Name</b>	Specify code / name of exporting file
<b>Rate Group</b>	Specify rate group in case of jurisdictional billing
<b>Imported File</b>	Select imported file
<b>Changes</b>	Select changes ( <i>Decreased, Increased, Not changed, New</i> )
<b>Confirmed</b>	Select, confirmed your file or not
<b>Rate</b>	Specify price interval
<b>Setup Fee</b>	Specify setup fee interval
<b>Min Time, sec</b>	Specify minimal time interval of tarificated calls
<b>Interval, sec</b>	Specify tarification interval
<b>Profile</b>	Select time profile ( <i>all time, business time, non-business time, weekends</i> )
<b>Grace Time, sec</b>	Specify gracr time interval

Fill here next fields:

Field	Description
<b>Date Format</b>	Date format in your export file. Syntax is following: for example, if you put "%d-%m-%Y" here, your date will look like 25-05-2011
<b>Code Deck</b>	Select a code deck here to rewrite code names in export file if needed
<b>Codes Output</b>	Specify how codes should be displayed. There are few options
	<ul style="list-style-type: none"> <li><b>Separate rows</b> Each code is placed into single row</li> </ul>
	<ul style="list-style-type: none"> <li><b>Delimited list</b> Codes are grouped by code name in a row, for example: 5510,5511,5512</li> </ul>
	<ul style="list-style-type: none"> <li><b>Ranges list</b> Codes are grouped by code name into ranges plus delimiter, for example: 5510-5512, 5515</li> </ul>

<b>Data Format</b>	Specify output file format, XLS or CSV
<b>Fields Delimiter</b>	Set delimiter for fields if you've chosen CSV
<b>"With headers row" Checkbox</b>	Include column names into the file
<b>"Codes from code deck" Checkbox</b>	Allows to additionally filter the export, by selecting only codes which are present in specified <i>Code Deck</i>
<b>Header text / Footer text</b>	Allows you to additionally put some text into exported file as header and footer respectively

## Configuring Mail Templates

Also, there are 4 different mail templates you can configure for your company. They are:

Template Name	Description
<b>Mail Template: Invoice</b>	Is used when sending invoice to the customer
<b>Mail Template: Payment Reminder Notification</b>	Is used when sending payment notification to the customer
<b>Mail Template: Low Balance Notification</b>	Is used when sending low balance notification to the customer
<b>Mail Template: Rates Notificator</b>	Is used when sending rate changes notification to the customer

To configure any of these templates, click on its name. Here presented templates configuration syntax used almost in all kinds of configured mails concerning Clients and Resellers data and configuration syntax which is used in foregoing list of mail templates.

## Configuration Syntax Concerning Client Data

Templates Configuration Syntax	Description
<code>#{client['status']}</code>	A client status: <ul style="list-style-type: none"> <li>• active</li> <li>• deleted</li> </ul>
<code>#{client['name']}</code>	A client name
<code>#{client['balance']}</code>	A client current balance
<code>#{client['balance_accountant']}</code>	A client mutual balance
<code>#{client['balance_avail']}</code>	A client balance + credit
<code>#{client['credit']}</code>	A client available credit
<code>#{client['c_company']}</code>	A client official company name
<code>#{client['c_address']}</code>	The post address of a client company
<code>#{client['c_email']}</code>	The email of a client
<code>#{client['locale']}</code>	A client location
<code>#{client['id_currencies']}</code>	The currency ID used by a client
<code>#{client['tz']}</code>	The time zone of a client
<code>#{client['id_taxes_profiles']}</code>	The taxes profiles used by a client
<code>#{client['company_status']}</code>	The status of a client company
<code>#{client['tax_id']}</code>	Customers tax ID of a clients' company
<code>#{client['reg_id']}</code>	The registration ID of a clients' company

## Configuration Syntax Concerning Company/Reseller Data

Templates Configuration Syntax	Description
<code>#{company['status']}</code>	A company/reseller status: <ul style="list-style-type: none"> <li>• active</li> <li>• deleted</li> </ul>
<code>#{company['balance']}</code>	A company/reseller current balance
<code>#{company['credit']}</code>	A company/reseller available credit
<code>#{company['c_address']}</code>	The post address of a company
<code>#{company['c_email']}</code>	The email of a company
<code>#{company['locale']}</code>	A company location
<code>#{company['id_currencies']}</code>	A company currency ID
<code>#{company['tz']}</code>	A company time zone
<code>#{company['id_taxes_profiles']}</code>	A company/reseller taxes profiles
<code>#{company['name']}</code>	Name of a company
<code>#{company['company_status']}</code>	The status of a company
<code>#{company['tax_id']}</code>	Customers tax ID of a company
<code>#{company['reg_id']}</code>	The registration ID of a company
<code>#{company['num_companys']}</code>	Number of companies/resellers
<code>#{company['num_cc']}</code>	Number of calling cards of a current company/reseller
<code>#{company['num_callshops']}</code>	Number of callshops of a current company/reseller

## Configuration Syntax for Mail Template: Invoice

Templates Configuration Syntax	Description
<code>#{invoice['c_dt']}</code>	Invoice date
<code>#{invoice['type']}</code>	Invoice type
<code>#{invoice['amount']}</code>	Invoice total sum
<code>#{invoice['period_start']}</code>	Invoice period start
<code>#{invoice['period_finish']}</code>	Invoice period end
<code>#{invoice['due_date']}</code>	Invoice due date
<code>#{invoice['no']}</code>	Invoice number
<code>#{invoice['descr']}</code>	Invoice comments
<code>#{invoice['tz']}</code>	Invoice time zone
<code>#{invoice['state']}</code>	Invoice state
<code>#{invoice['client_type']}</code>	Invoiced client type
<code>#{invoice['client_name']}</code>	Invoiced client name
<code>#{client[currency]}</code>	A client currency

## Configuration Syntax for Mail Template: Low Balance Notification

Templates Configuration Syntax	Description
--------------------------------	-------------

<code>#{client['currency']}</code>	A client currency
<code>#{client ['alert_threshold']}</code>	Notification for a client of reached balance limit
<code>#{client ['alert_athreshold']}</code>	Notification for an administrator of reached balance limit

**Configuration Syntax for Mail Template: Rates Notificator**

Templates Configuration Syntax	Description
<code>#{msg ['rt_name']}</code>	Rate table name
<code>#{msg ['lastedit_dt']}</code>	Data when Rate table was last time edited

**Knowledge Base Articles**

- [US Taxation](#)
- [What is resellers billing mode?](#)
- [How to set up a functional capacity?](#)
- [What is real time fraud protection functionality and how to set it up?](#)

# Retail Details

This document will describe everything that concerns the retail functions of JeraSoft VoIP Carrier Suite. Please note, that for all this functions to be available to you, your JeraSoft VCS installation should include the Retail Module.

In addition to vast wholesale functionality, JeraSoft VCS offers rich retail functions, which are described in below sections of this document. Each section describes an important aspect of retail-based VoIP business, and among features you may find Calling Cards, Payment Gateways, Subscription Packages, Top-Up Cards and Call Shops. All of these features are grouped within *Retail* section of your JeraSoft VCS solution.

For more detailed information please check the related subsections:

- [Calling Cards](#)
- [Top-up Cards](#)
- [Call Shops](#)
- [Packages](#)
- [DID Management](#)

# Calling Cards

## On this page

- [Calling Cards List](#)
- [Creating Card Series](#)
- [Calling Card Series Properties](#)

## Calling Cards List

This section represents built-in calling card generator that allows you to generate card series for prepaid customers. Each generated card is considered a billing client, so customer can perform calls, login to his control panel to browse statistics and other relevant information. Main window of this section looks like on screenshot:

Screenshot: Calling Cards section main window

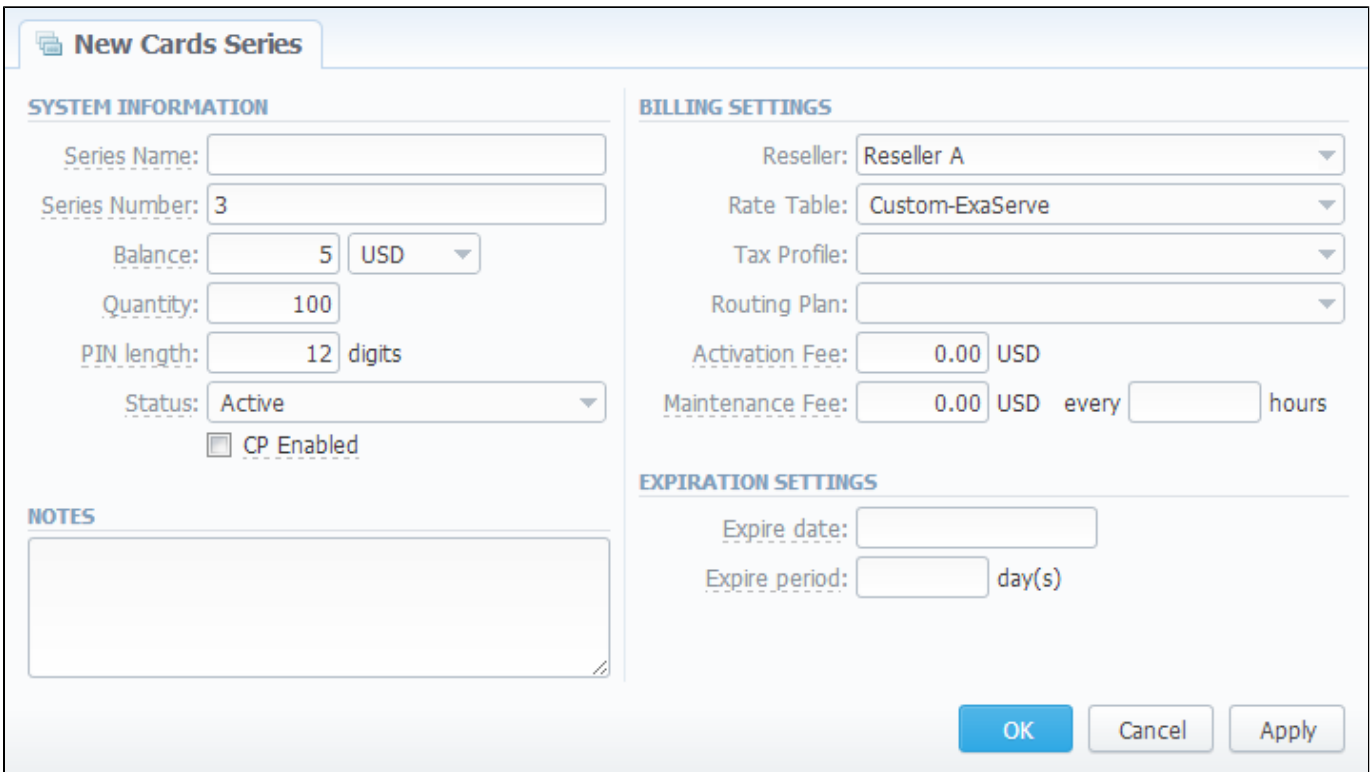


Status	Series Number	Series Name	Balance	Qty	Reseller	Rate Table	Act. Fee	Maint. Fee
●	1256	card	5.00 USD	50	Reseller_A	Rate-Caribbean	5.00 USD	1.00 every 72 hours
●	3435	calling	5.00 EUR	10	Company Name	Figaro	—	—
●	3436	axn	10.00 USD	10	Company Name	Figaro	—	—

## Creating Card Series

To create card series, press «New Cards Series» button. A new window will pop-up:

Screenshot: Generate card series window



**SYSTEM INFORMATION**

Series Name:

Series Number:

Balance:

Quantity:

PIN length:  digits

Status:

CP Enabled

**NOTES**

**BILLING SETTINGS**

Reseller:

Rate Table:

Tax Profile:

Routing Plan:

Activation Fee:  USD

Maintenance Fee:  USD every  hours

**EXPIRATION SETTINGS**

Expire date:

Expire period:  day(s)



Enter all required info in fields below:

Field Name	Description
<b>Series Name</b>	A name that describes current card series
<b>Series Number</b>	A code of card series. This code will prepend serial number
<b>Balance</b>	Cards balance value within current series
<b>Quantity</b>	Quantity of calling cards within current series
<b>PIN length</b>	Specify a desired PIN-code length for current calling card series (it can not be less than 8 digits)
<b>Status</b>	An initial status of created call cards within series. Can be changed later in card series settings
<b>"CP Enabled" checkbox</b>	Whether calling card users should be able to login to their control panels or not. If enabled, user can login to control panel by using card serial number as login and PIN-code as password
<b>Reseller</b>	Defines what reseller owns current calling card series
<b>Rate Table</b>	What rate table should be used with calling cards within current series
<b>Routing Plan</b>	Select a routing plan for current card series
<b>Activation Fee</b>	Enter activation fee in this field
<b>Maintenance Fee</b>	When specified number of days pass, starting from activation date, current calling card series will be expired
<b>Expire date</b>	Current calling cards series will be expired on specified date
<b>Expire period</b>	When specified number of days pass, starting from activation date, current calling card series will be expired

## Calling Card Series Properties

After «OK» button is pressed, calling cards series will be created, and appear in the list of section main window. To open series properties, click on series name. In a properties window you will have access to the following information:

- **Status** – status of a card within current series. There are 4 possible statuses: activated, pending, expired, used.
- **Number** – number of a card within current series;
- **Balance** – current balance of respective calling card;
- **PIN** – respective calling card PIN-number.

Also, here you can perform a card search with search form, and export whole card series to a CSV file by pressing «*Download CSV*» button.

If you go to *Parameters* tab, you will be able to change some of the parameters you've entered when creating series.



**Note:** Calling Cards feature works only via RADIUS-protocol, so to make use of it, you need to have RADIUS enabled. Also, you would like to use the specific platform, that is able to handle calling card series authorization, for example Mera IP Centrex or Quintum Tenor DX (class 5 switch).

# Top-up Cards

## On this page

- [Top-up Cards List](#)
- [Creating New Series](#)

## Top-up Cards List

Top-up Cards section allows you to generate series of top-up cards for your customers, which they can use to recharge their balance. Main window of this section is displayed on screenshot:

Screenshot: Top-Up Cards section main window

Serial Number	Amount	PIN Code	Reseller	Activated	Created on
124-001054756	5.00 USD	8669 8569 3479	Reseller_A	Client(Client's Panel)   05/15/2014	05/15/2014 13:22:38 +0000
124-001054755	5.00 USD	9502 5038 0479	Reseller_A	—	05/15/2014 13:22:38 +0000
124-001054754	5.00 USD	5154 3196 3398	Reseller_A	—	05/15/2014 13:22:38 +0000
124-001054753	5.00 USD	6954 3553 4036	Reseller_A	—	05/15/2014 13:22:38 +0000
124-001054752	5.00 USD	7696 3041 3034	Reseller_A	—	05/15/2014 13:22:38 +0000
123-008845612	10.00 USD	9818 8067 6010	Reseller_A	—	05/15/2014 10:58:23 +0000

## Creating New Series

To create new series, press «Generate Top-Up Cards» button and in the pop-up window (Screenshot below) fill the following fields:

Screenshot: Generating Top-up Cards window

**Generate Top-Up Cards**

Amount:

Quantity:

Series:

PIN Length:  digits

Reseller:




Expiry Date:

Field Name	Description
<b>Amount</b>	Cards balance value within series
<b>Quantity</b>	Quantity of cards within series
<b>Series</b>	A code identifier of card series. This code will prepend a serial number
<b>PIN Length</b>	Specify a desired PIN-code length for current calling card series (it can not be less than 8 digits)

<b>Reseller</b>	Defines what reseller owns current calling card series
<b>Expiry date</b>	Current calling cards series will be expired on specified date

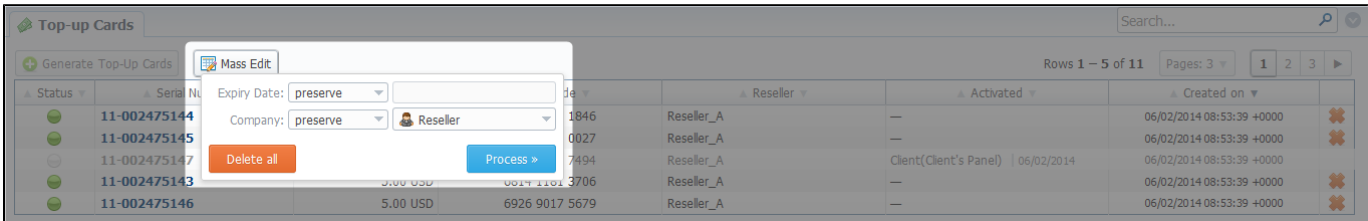
After top-up card series is created, your customers will be able to enter respective PINs in their control panel in *Payment Gateways* section, to recharge their balance (respective rights for users are required).

The status of top-up cards is displayed in *Top-Up Cards* main window in a form of the following icons:

Icon	Description
	Shows, that the current card is new
	Shows, that the current card is activated
	Shows, that the current card is expired

Also you may delete cards or change some settings for already created top-up cards using **"Mass Edit"** button (Screenshot below). In the following window you can specify expiration date of cards by changing state of respective *"Expiry Date"* field to *"set to"* and select data and time, and define a reseller who will be the owner of these cards by changing state of *"Company"* field to *"set to"* and select a reseller from drop down list, then press *"Process"* button and all changes will be applied. *"Delete all"* button will wipe out all existing top-up cards.

Screenshot: *Top-up cards "Mass Edit" window*



# Call Shops

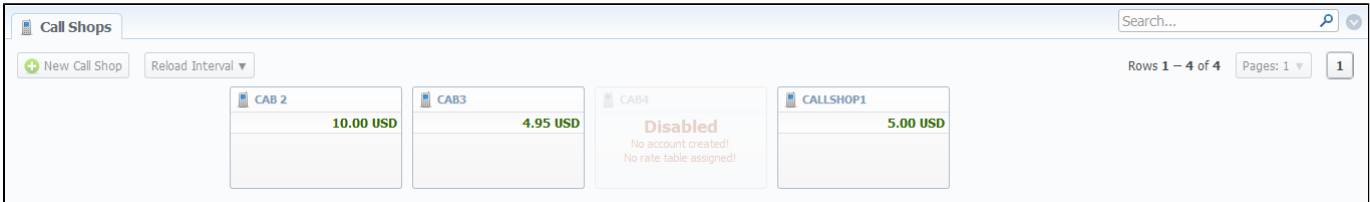
## On this page

- [Call Shops List](#)
- [Creating New Call Shop](#)

## Call Shops List

Call Shops section allows you to create and manage call shop networks. Each call shop is RADIUS-based customer. That's why for correct work of Call Shops module, RADIUS should be enabled. Main window is presented on screenshot:

Screenshot: Call Shops section main window




## Creating New Call Shop

To create new call shop, press «New Call Shop» button and in the pop-up window (Screenshot below) fill the following details:

Screenshot: Creating new call shop

The screenshot shows a 'New Client' form. It is divided into two main sections: 'SYSTEM INFORMATION' and 'ORIGINATOR SETTINGS'. The 'SYSTEM INFORMATION' section includes fields for Name, Reseller (set to 'Reseller A'), Currency (set to 'USD'), Timezone (set to 'default (Asia/Riyadh)'), and Status (set to 'Active'). The 'ORIGINATOR SETTINGS' section includes 'Allowed Credit' (set to '0.00 USD'), 'Rate Table', and 'Tax Profile'. Below these is a 'DYNAMIC ROUTING' section with 'Routing Plan' and 'Capacity' (with a unit of 'channels'). At the bottom right, there are 'OK' and 'Cancel' buttons.

Field Name	Description
<b>Name</b>	Enter name for call shop
<b>Reseller</b>	Select a reseller that will be owner of this call shop
<b>Currency</b>	Specify preferred currency
<b>Timezone</b>	Choose preferred timezone
<b>Status</b>	Select a status for this call shop
<b>Allowed Credit</b>	Specify credit value here
<b>Rate Table</b>	Choose a rate table this call shop will be using
<b>Tax Profile</b>	Specify a Tax Profile this call shop will be using
<b>Routing Plan</b>	Select a routing plan here, if you wish to use dynamic routing for this call shop
<b>Capacity</b>	You can limit origination capacity for this callshop in this field

After all information is entered, press «OK» and call shop will appear on the list. Then you need to click  icon and go to *Accounts* tab, where you need to fill call shop's account in same fashion as you did for your generic clients. After that is done, call shop is ready to be used.

Also you may set an interval for *Call Shops list* reloading, using the respective button which is placed in main window of this section.



Please note that **calculator** should be in **realtime mode** for correct *Call Shops* work.

# Packages

## On this page

- [Packages List](#)
- [Adding New Package](#)
- [Knowledge Base Articles](#)

## Packages List

The *Packages* section is there to help you add and manage any one-time or periodic additional services that your company may provide in addition to VoIP. For example, you may create a package that resembles a rent of some equipment or create a free-minutes promotional package. The main window is a list that displays all packages that are currently available (Screenshot below):

Screenshot: *Packages* section main window



ID	Status	Name	Activation Fee	Subscription Fee	Period	Reseller	
18	●	Australia Extra Line	0.00 USD	25.00 USD	1 month(s)	Reseller B	✖
17	●	Australia Extra Number	0.00 USD	7.50 USD	1 month(s)	Reseller B	✖
20	●	Bahrain Extra Line	0.00 USD	25.00 USD	1 month(s)	Reseller B	✖
19	●	Bahrain Extra Number	0.00 USD	15.00 USD	1 month(s)	Reseller B	✖
24	●	Canada Extra Line	0.00 USD	25.00 USD	1 month(s)	Reseller B	✖
23	●	Canada Extra Number	0.00 USD	2.50 USD	1 month(s)	Reseller A	✖
14	●	CP - Go - Extra 10 Numbers	0.00 DKK	25.00 DKK	1 month(s)	Reseller A	✖
2	●	CP - Go - Extra Number	0.00 DKK	2.50 DKK	1 month(s)	Reseller A	✖
11	●	CP - HostedTrunk - 10 Lines	0.00 DKK	700.00 DKK	1 month(s)	Reseller A	✖
9	●	CP - HostedTrunk - 1 Line	0.00 DKK	100.00 DKK	1 month(s)	Reseller A	✖

## Adding New Package

You can add new package by pressing «*New Package*» button. New window that opens contains the following information (Screenshot below):

Screenshot: *Package properties*

New Package

Name:

Reseller:

Currency:

Code Deck:

Status:

---

**BILLING SETTINGS**

Period:

Activation Fee:  USD

Subscription Fee:  USD

Fees include taxes

Align to Payment Terms

Recalculate to Period

---

**PACKAGE APPLICATION**

Priority:

Deal Start Date:

Deal End Date:

**DID LIMITS**

Number of DID's:

Allowed DID groups:

---

**VOLUME LIMITS** +

---

**DISCOUNTS** +

Field Name	Description
<b>Name</b>	Name of your package
<b>Reseller</b>	Specify an owner for this package
<b>Currency</b>	Define a currency for this package
<b>Code Deck</b>	Specify Code Deck if you plan to create <i>limits</i> by using Code Names
<b>Status</b>	Current status of package ( <i>Active, Disabled, Archive</i> )
<b>Period</b>	Specify a period for current package if it's renewable
<b>Activation Fee</b>	A fee that will be charged upon package activation
<b>Subscription Fee</b>	A fee that will be charged upon package renewal
<b>"Fees include taxes" Checkbox</b>	If enabled, taxes are included into package prices, if disabled – taxes will be calculated with respective Tax Profile of customer
<b>"Align to Payment Terms" Checkbox</b>	Allows system to align period of package to customer's payment Terms, evening Package billing with actual invoicing for voice traffic
<b>"Recalculate to Period" Checkbox</b>	Allows even recalculation of days up to Payment Terms period, if Package was activated somewhere in the middle

<b>Priority</b>	If there are multiple packages that satisfy a call, then a package with highest priority will be used	
<b>Deal Start Date</b>	Package's limits and discounts are only effective after specified date	
<b>Deal End Date</b>	Package's limits and discounts are disabled after specified date	
<b>DID Limits</b>	Specify how many DID's and from which group can be assigned to a customer with this package	
	<ul style="list-style-type: none"> <li>• <b>N u m b e r o f D I D's</b></li> </ul>	How many DID's can be assigned at the same time
	<ul style="list-style-type: none"> <li>• <b>A l l o w e d D I D g r o u p s</b></li> </ul>	From which group DID's are picked for customer
<b>Volume Li mits</b>	Here you can create promotional minute packets that will be included into package	
	<ul style="list-style-type: none"> <li>• <b>C o d e</b></li> </ul>	Specify a code. Please note that package limits are working only for exact code, i.e. if a short code (for instance, '380') was added, package limits will work only for this code and won't automatically work for long codes like '38067'. To make volume limits work for long codes you must add, for instance, code 380% in package's code deck (where % is SQL wildcard)
	<ul style="list-style-type: none"> <li>• <b>C o d e N a m e</b></li> </ul>	Specify a code name from selected Code Deck
	<ul style="list-style-type: none"> <li>• <b>T y p e</b></li> </ul>	Select a limitation type from the drop down list
	<ul style="list-style-type: none"> <li>• <b>L i m i t</b></li> </ul>	Enter amount of free minutes or bonus money (depends on selected limitation type) that will be used in current promotion for specified code or code name
<b>Discounts</b>	A promotional discount on package " <i>Subscription Fee</i> ", applied after given number of package reactivations	
	<ul style="list-style-type: none"> <li>• <b>A c t i v a t i o n C o u n t</b></li> </ul>	Specify which activation will trigger the discount
	<ul style="list-style-type: none"> <li>• <b>D i s c o u n t</b></li> </ul>	How much would be taken off of package " <i>Subscription Fee</i> ". Note, the value is in currency points, not in percents



---

Information concerning Packages assignment to a certain client can be found here: [Clients Packages](#).

## Knowledge Base Articles

- [How to apply discounts without having to create a new package?](#)

# DID Management

## On this page

- [DID Management Section Main Window](#)
- [Editing DID Numbers](#)
- [Creating DID Number](#)
- [DIDs Importing process](#)
- [Operators List Section](#)
- ["New Operator" Button](#)
- [DIDs History Section](#)

## DID Management Section Main Window

This section allows creation of DID numbers, which may be later assigned to one of Packages and finally provided to customer under Package terms (Screenshot).

Screenshot: DID management section main window

ID	Status	DID	DID Groups	Operator	Client	Reseller
6	In Stock	12314343242	DID-1	OPERATOR_3	—	Company Name
2	Active	1232455666	DID-2	OPERATOR_2	client-DID   account_3	Reseller_A
8	Active	123455532	DID-1, DID-2	OPERATOR_3	client-DID   DID-account	Company Name
7	In Stock	12345555	DID-1	OPERATOR_1	—	Reseller_A
9	Active	12345678910	DID-1, DID-2	OPERATOR_3	—	Company Name
115	In Stock	124342442424	DID-1, DID-2	OPERATOR_2	—	Reseller_A
12	In Stock	323438394342	DID-1	OPERATOR_3	Client_ordinator   account_2	Company Name
11	Active	3239123231238	DID-1	OPERATOR_3	client-DID   account_3	Company Name
4	Active	3454262446	DID-1	OPERATOR_1	—	Reseller_A
1	In Stock	3567123944	DID-1	OPERATOR_1	—	Reseller_A
14	Reserved	38065329231	DID-1, DID-2	OPERATOR_1	—	Company Name
10	Active	444444444	DID-1	OPERATOR_3	client-DID   account_3	Reseller_A
13	In Stock	546575243234	DID-1, DID-2	OPERATOR_3	—	Company Name
5	Active	5564443424224	DID-1	OPERATOR_4	—	Reseller_B
3	Reserved	5567756754	DID-2	OPERATOR_3	—	Reseller_A

Column	Description
<b>ID</b>	ID of current DID number
<b>Status</b>	Status of current DID number
	<ul style="list-style-type: none"> <li>• <b>Active</b></li> </ul> Is in use by a customer
	<ul style="list-style-type: none"> <li>• <b>In Stock</b></li> </ul> DID is available for usage
	<ul style="list-style-type: none"> <li>• <b>Blocked</b></li> </ul> Temporarily blocked
	<ul style="list-style-type: none"> <li>• <b>Reserved</b></li> </ul> Not used DID, but not available for purchase yet
	<ul style="list-style-type: none"> <li>• <b>Hold</b></li> </ul> Is on hold after usage, should become "In Stock" soon
<ul style="list-style-type: none"> <li>• <b>Archived</b></li> </ul> Not used and not available anymore	

<b>DID</b>	Current DID number
<b>DID's Groups</b>	Shows group, which current DID belongs to
<b>Operator</b>	Current DID's operator, a owner of current DID number
<b>Client</b>	Shows client and account, which current DID belongs to
<b>Reseller</b>	Current DID's reseller



#### Note!

Please note that *DID number without respective DID Group assigned*, will automatically change the status into "In Stock" after 1 day being in status "Hold" by the system. As for DIDs *with respective DID Group assigned*, they will change status from "Hold" to "In Stock" after specified number of hold days in *DID Groups parameters*.

## Editing DID Numbers

By pressing on current DID number, the new window will pop up. Here you can edit all information about current DID, including it's status, group, reseller, etc. (Screenshot)

Screenshot: "Edit DID" window

## Creating DID Number

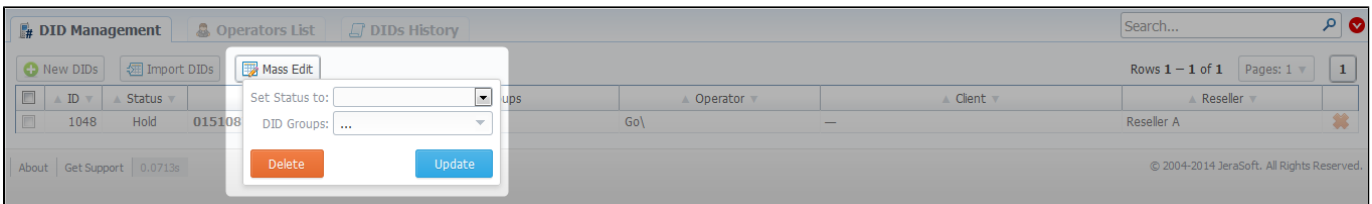
The whole process of creating DID number can be described in few steps:

1. Go to *Configuration – Groups* and create one or more *DID Groups* by pressing "New Group" button in "DID Groups" section tab;
2. Go back to *Retail – DID Management* and create one or more Operators (DID providers) by pressing "New Operator" button in "Operators List" section tab;
3. In "DID Management" section tab press "New DIDs" button and add one or more DID numbers to previously created DID Group. Make sure that these DID's are put in "in stock" state. You can also use "Import DID's" button;
4. Go to *Retail – Packages* and create a package, that will include DID Group and number of allowed DID's to be picked from it;
5. Assign respective Package to customer, then go to DID's tab, where you will be allowed to pick one or more DID numbers.

This will effectively assign a DID number to one of customer's accounts. Please note, that this functionality is very switch dependent, and additional development or testing may be required. Please contact JeraSoft Support team for help, if you have any doubts or questions.

On top of that, you can easily change the status for group of selected DIDs or delete them using "Mass Edit" button (Screenshot below). For changing the status you need to select DIDs (for which the status should be changed), then press "Mass Edit" button and in pop-up window specify the status from drop down list in respective "Set Status to" field, press "Update" button for confirming the change. Also using "Mass Edit" button you can assign group of DIDs to specific DID group, by selecting it from drop down list of "DID Groups" field. If you press "Delete" button only selected DIDs will be deleted.

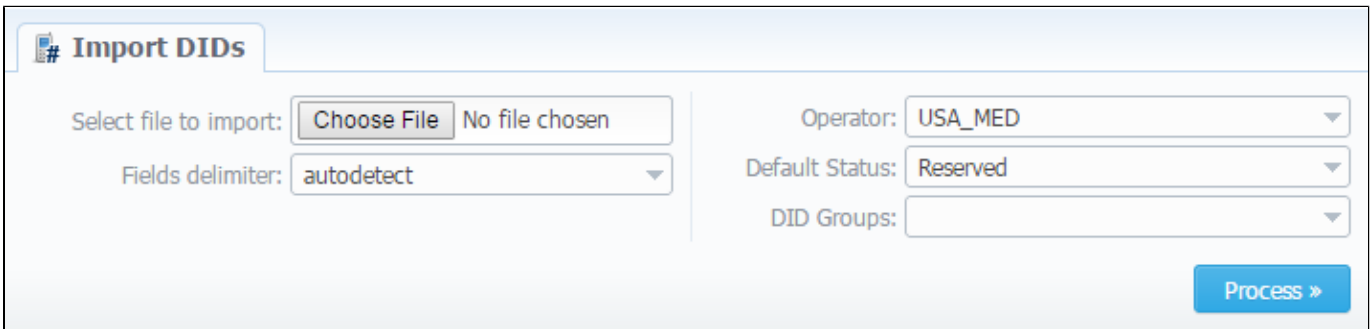
Screenshot: DID management "Mass Edit" window



## DIDs Importing process

The process of DIDs importing is pretty simple. Firstly, you should click on "Import DIDs" button which can be found in the *DID Management* section main window. Secondly, in a pop-up window you should fill in all needed fields (Screenshot below), that is select a file for importing, specify an operator, etc., and after that press "Process" button. Please note that on the second step you can specify which group an imported list of DIDs will belong to.

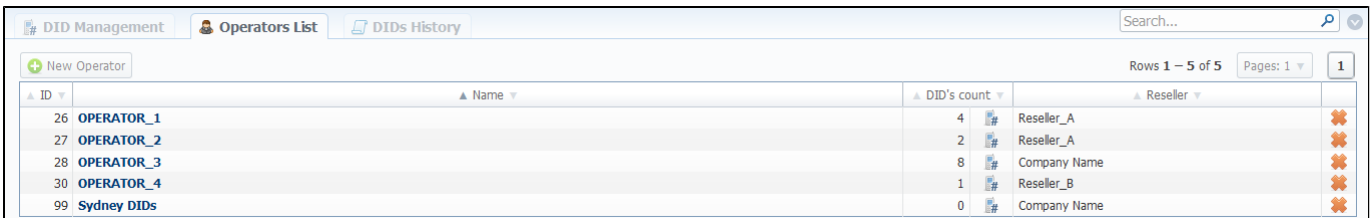
Screenshot: Importing DIDs



## Operators List Section

This section shows the list of operators who are owners of DID numbers, also it allows you to add a new operator to the list (Screenshot).

Screenshot: Operators List Main Window



Column	Description
<b>ID</b>	ID of current DID number
<b>Name</b>	Operators' name
<b>DID's count</b>	The amount of DID numbers owned by the current operator
<b>Reseller</b>	Current operators' reseller

Icon	Description
	Click this icon to filter DID numbers of the current operator and show results in <i>DID Management</i> main window
	Click this icon to delete the operator

## "New Operator" Button

Press "New Operator" button and in the pop-up window specify an operator name and select a reseller for this operator then press "OK" button.

## DIDs History Section

This section represents the information concerning DID numbers changes and updates (Screenshot).

Screenshot: DIDs History window

ID	Status	DID	Client / Account	Operator	Reseller	Package	Operation	Date
614	Active	12345678910	—	OPERATOR_3	Company Name	FREE MINUTES	UPDATE	06/18/2014 07:11:40 +0000
613	Active	3239123231238	client-DID   account_3	OPERATOR_3	Company Name	DID	UPDATE	06/17/2014 22:01:08 +0000
610	Active	1232455666	client-DID   account_3	OPERATOR_2	Reseller_A	DID	UPDATE	06/17/2014 22:01:08 +0000
612	Active	444444444	client-DID   account_3	OPERATOR_3	Reseller_A	DID	UPDATE	06/17/2014 22:01:08 +0000
611	Active	123455532	client-DID   DID-account	OPERATOR_3	Company Name	DID	UPDATE	06/17/2014 22:01:08 +0000
606	Hold	3239123231238	client-DID   account_3	OPERATOR_3	Company Name	DID	UPDATE	06/17/2014 22:01:08 +0000
607	Hold	444444444	client-DID   account_3	OPERATOR_3	Reseller_A	DID	UPDATE	06/17/2014 22:01:08 +0000
609	Hold	1232455666	client-DID   account_3	OPERATOR_2	Reseller_A	DID	UPDATE	06/17/2014 22:01:08 +0000
608	Hold	123455532	client-DID   DID-account	OPERATOR_3	Company Name	DID	UPDATE	06/17/2014 22:01:08 +0000
605	Active	12345678910	Client1   account_1	OPERATOR_3	Company Name	FREE MINUTES	UPDATE	06/17/2014 22:01:08 +0000
604	Hold	12345678910	Client1   account_1	OPERATOR_3	Company Name	FREE MINUTES	UPDATE	06/17/2014 22:01:08 +0000
601	Active	123455532	client-DID   DID-account	OPERATOR_3	Company Name	DID	UPDATE	06/17/2014 22:01:08 +0000
602	Active	444444444	client-DID   account_3	OPERATOR_3	Reseller_A	DID	UPDATE	06/17/2014 22:01:08 +0000
603	Active	3239123231238	client-DID   account_3	OPERATOR_3	Company Name	DID	UPDATE	06/17/2014 22:01:08 +0000
600	Active	1232455666	client-DID   account_3	OPERATOR_2	Reseller_A	DID	UPDATE	06/17/2014 22:01:08 +0000
599	Hold	1232455666	client-DID   account_3	OPERATOR_2	Reseller_A	DID	UPDATE	06/17/2014 22:01:08 +0000
596	Hold	3239123231238	client-DID   account_3	OPERATOR_3	Company Name	DID	UPDATE	06/17/2014 22:01:08 +0000
597	Hold	444444444	client-DID   account_3	OPERATOR_3	Reseller_A	DID	UPDATE	06/17/2014 22:01:08 +0000
598	Hold	123455532	client-DID   DID-account	OPERATOR_3	Company Name	DID	UPDATE	06/17/2014 22:01:08 +0000
595	Active	12345678910	Client1   account_1	OPERATOR_3	Company Name	FREE MINUTES	UPDATE	06/17/2014 22:01:08 +0000

Column	Description	
<b>ID</b>	ID of current DID number	
<b>Status</b>	Status of current DID number	
	<ul style="list-style-type: none"> <li><b>Active</b></li> </ul>	Is in use by a customer
	<ul style="list-style-type: none"> <li><b>In Stock</b></li> </ul>	DID is available for usage
	<ul style="list-style-type: none"> <li><b>Blocked</b></li> </ul>	Temporarily blocked
	<ul style="list-style-type: none"> <li><b>Reserved</b></li> </ul>	Not used DID, but not available for purchase yet
	<ul style="list-style-type: none"> <li><b>Hold</b></li> </ul>	Is on hold after usage, should become "In Stock" soon
<ul style="list-style-type: none"> <li><b>Archived</b></li> </ul>	Not used and not available anymore	
<b>DID</b>	Current DID number	
<b>Client/Account</b>	Shows client and account, which current DID belongs to	
<b>Operator</b>	Current DID's operator	
<b>Reseller</b>	Current DID's reseller	

<b>Package</b>	Shows packages, which the current DID belongs to
<b>Operation</b>	The operation which was applied to the current DID
<b>Date</b>	Date of the made change

# Statistics

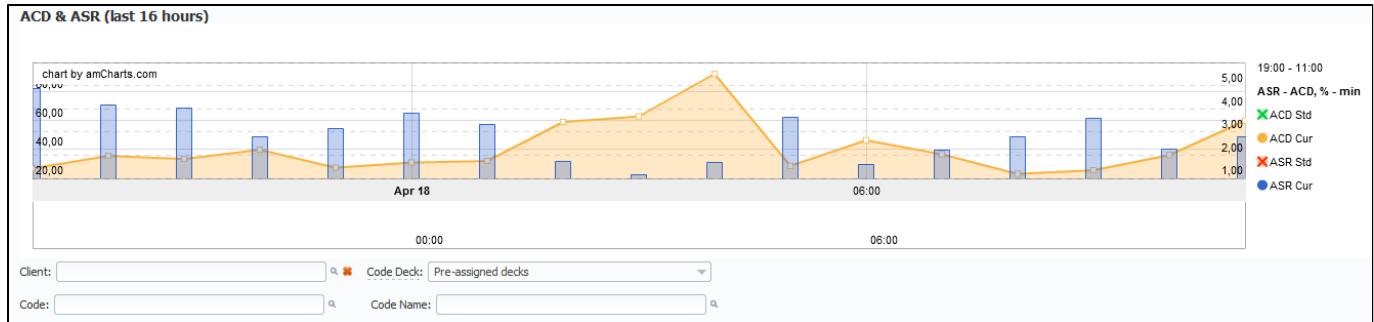
This section of our Guide is dedicated to establish statistics through VCS, for example to monitor customer's activities, to form different reports, etc. For more details please check the related sections:

- [Dashboard](#)
- [Summary Report](#)
- [Orig-Term Report](#)
- [Profit Report](#)
- [LCR Lists](#)
- [CDRs List](#)
- [Graphical Charts in Statistics](#)
- [Mismatches Report](#)
- [Calls Rerating](#)
- [Reports to E-mail](#)
- [Archive Management](#)

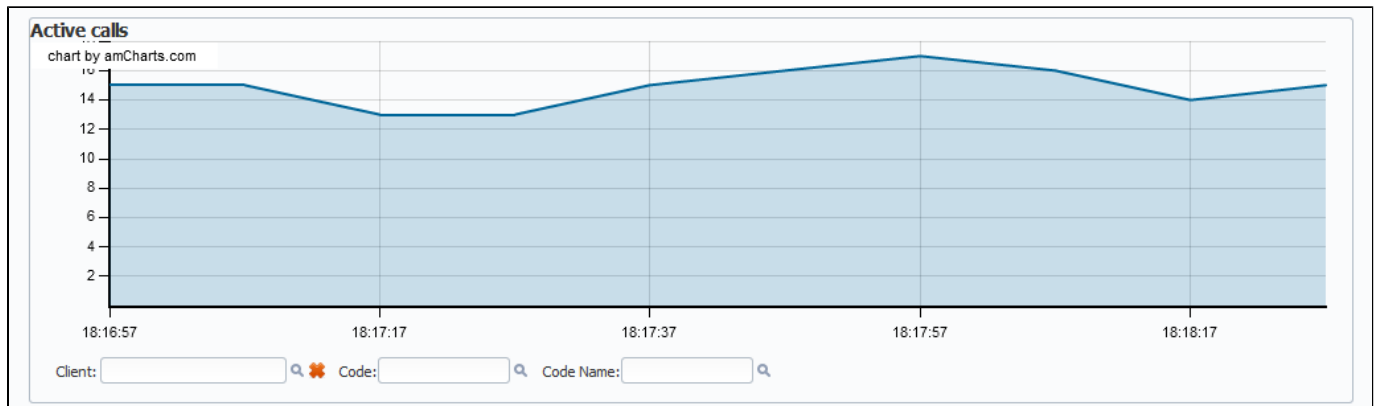
# Dashboard

Dashboard section is a little something that will allow you to monitor your customer's activities in real-time, by providing visual graphs on some most crucial information, such as top ten destinations in recent 30 minutes, quality information and active calls graph (Screenshots below).

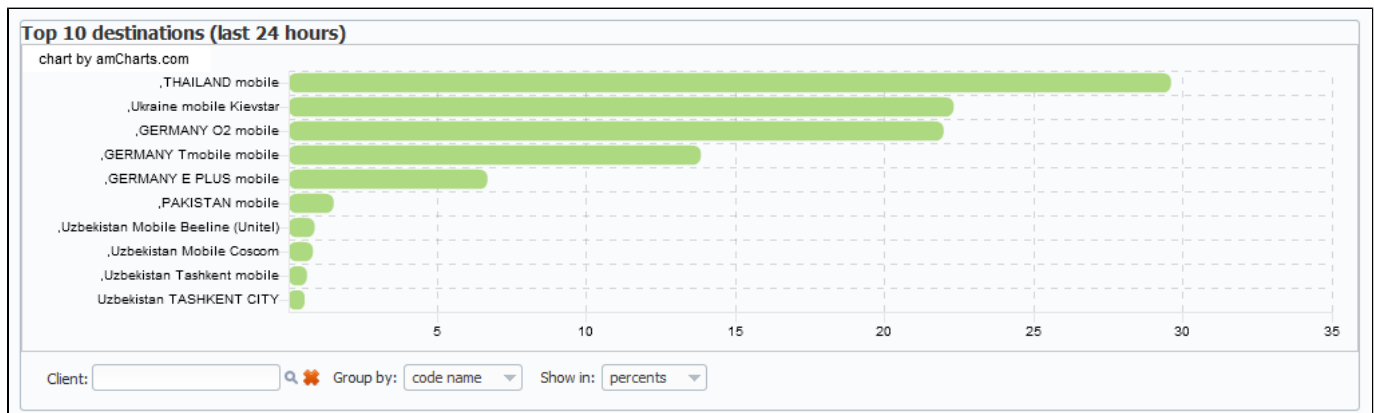
Screenshot: ACD & ASR bar-chart



Screenshot: Active calls graph



Screenshot: Top 10 destinations bar-chart



Please note that all data provided in *Top 10 destination bar-chart* is relevant only for **Termination**.

## Knowledge Base Articles

- [Why there are no active sessions?](#)
- [Why it is impossible to use Code and Code Name filters in Dashboard section?](#)
- [Why Dashboard doesn't show statistics?](#)



# Summary Report

## On this page

- [Summary Report Search Form](#)
- [Creating New Report](#)
- [Grouping The Report Data](#)
- [Knowledge Base Articles](#)

## Summary Report Search Form

This section allows you to form summary reports of statistics. Main window of this section is displayed as a search form (Screenshot below):

Screenshot: Summary Report search form

## Creating New Report

To create a report you should specify the next parameters:

Section	Field Description	
<b>General Report Settings</b>	Settings needed for generating correct report	
	<b>Period</b>	Specify a period for report
	<b>Client</b>	Define a client for the report
	<b>Account</b>	Enter an account for the report
	<b>Client Type</b>	Select the type of a client for report ( <i>Client, Reseller, Calling card or Call shop</i> )
	<b>Code Name</b>	Specify code name of desired destination here
	<b>Code</b>	Specify code of desired destination here
	<b>Under Owner</b>	Specify reseller whose information should be displayed
	<b>Code Deck</b>	Select a code deck that should be used to pull names for <i>Code Name</i> field
	<b>Currency</b>	Specify currency for report
	<b>Output</b>	List output format (HTML-document, Excel csv file)
	<b>"Show subgroups" Checkbox</b>	If enabled, data grouped by separate tables will be shown in case when more than 2 "Group by" options are used

	<b>"Show subtotals" Checkbox</b>	If enabled, subtotals for groups of rows with the same first grouping column will be shown
	<b>Group by</b>	Select grouping option
<b>Advanced Report Settings</b>	Additional parameters for filtration	
	<b>Package</b>	Select package for making filtration of statistics
	<b>Group</b>	Define a group which will be used as a filter criteria
	<b>Type</b>	Select type of a client for executing filtration of report results
	<b>VoIP Gateway</b>	Specify a VoIP host as a filtering criteria
	<b>Res Code</b>	Define res code for results filtration
	<b>Minutes, Total</b>	Enter the range of total calls duration in minutes
	<b>Cost, Total</b>	Enter the range of total call cost
	<b>ASR Cur</b>	Specify the range of "ASR Cur" for calls you would like to display
	<b>Calls Not Zero</b>	Define the range of calls, that have duration equal to or more than 1 second
	<b>Calls Total</b>	Enter the range of total calls
	<b>ACD Cur</b>	Specify the range of "ACD Cur" for calls you would like to display

After selecting all needed parameters press "Query" button and you will get a report like on screenshot below:


Screenshot: Summary Report window

▲ Total Cost ▼	Avg Rate	Time, min		Calls					ASR		ACD, min		▲ PDD ▼	▲ SCD ▼		
		▲ Total ▼	▲ Billed ▼	▲ Total ▼	▲ Not Zero ▼	▲ Success ▼	▲ Busy ▼	▲ No Channel ▼	▲ Std ▼	▲ Cur ▼	▲ Std ▼	▲ Cur ▼				
<b>TYPE: ORIGINATION</b>																
150.5067 DKK	7.5379	29.25	19.97	25	25	25	0	0	100.00 %	100.00 %	1.17	1.17	00:00	00:00		
<b>TYPE: TERMINATION</b>																
0.0000 DKK	0.0000	16.00	0.00	8	8	8	0	0	100.00 %	100.00 %	2.00	2.00	00:00	00:00		

Report data columns are the following:


Column	Description	
<b>Total Cost</b>	Total call cost	
<b>Avg Rate</b>	Average Rate per minute, calculates as total cost / billed time	
<b>Time, min</b>	Call duration in minutes	
	• <b>Total</b>	Total call duration
	• <b>Billed</b>	Billed call duration
<b>Calls</b>	Processed calls quantity	
	• <b>Total</b>	Total calls quantity
	• <b>Not Zero</b>	Quantity of calls, that have duration equal to or more than 1 second
	• <b>Success</b>	Quantity of calls, that have duration equal to or more than 1 second and successful end code


	<ul style="list-style-type: none"> <li>• <b>Busy</b></li> </ul>	"Busy" calls quantity
	<ul style="list-style-type: none"> <li>• <b>No Channel</b></li> </ul>	No circuit / channel available
<b>ASR</b>	average successful rate (successful calls percent)	
	<ul style="list-style-type: none"> <li>• <b>Std</b></li> </ul>	Number of calls with "success" status divided by total number of calls minus all calls with "no channel available" status
	<ul style="list-style-type: none"> <li>• <b>Cur</b></li> </ul>	Number of calls with duration > 0 divided by total number of calls
<b>ACD, min</b>	average call duration	
	<ul style="list-style-type: none"> <li>• <b>Std</b></li> </ul>	Sum of all calls durations divided by number of calls with "success" status
	<ul style="list-style-type: none"> <li>• <b>Cur</b></li> </ul>	Sum of all calls durations divided by number of calls with duration > 0
<b>PDD</b>	Post dial delay: time in seconds between setup time and return of signaling by termination provider	
<b>SCD</b>	Session connect delay: time in seconds between setup and connect time of the call	

By clicking on a  icon in top right corner of this section's screen, you will be able to select appropriate data columns in this report (for example, hide some information that you don't need). Same feature is available in *Orig-Term Report*.

## Grouping The Report Data

The report data can be grouped by using the "Group by #" fields. For example, if you specify the grouping by *Clients*, then report will be divided by clients, or, if you specify grouping as *Codes Report Name* – report will be created under one row with shortest equal code for multiple code groups. You can select any grouping values in "Group by #" fields, up to 6 at a time. The grouping is additive, so if all 3 fields are defined, the report will be divided by all defined values simultaneously. The "Show subtotals" checkbox will show the subtotals under each defined group (works when 2 or 3 groups are defined).

 **Tip:** This section's reports can only be formed using "whole" periods – i.e. hourly. For example, if you will specify the period from 13:00 to 14:35, the report will be formed using the period from 13:00 to 15:00.

 **Tip:** System displays the real period of statistics below created report.

## Knowledge Base Articles

- [Why are there differences between reports?](#)
- [How to hide rates in Summary Report for specific system users?](#)

# Orig-Term Report

## On this page

- [Orig-Term Report Search Form](#)
- [Creating Orig-Term Report](#)
- [Knowledge Base Articles](#)

## Orig-Term Report Search Form

This report allows you to trace all call routes from customer to provider with indication of respective revenues. Main window of this section is displayed as a search form (Screenshot down below).

Screenshot: *Orig-Term Report search form*

The screenshot shows a web-based search form titled "Orig-Term Report". At the top, there is a "Period" section with dropdowns for "today", date and time pickers (2015-01-05 00:00:00 to 2015-01-05 23:59:59), a time zone dropdown (GMT+2), and an "all time" dropdown. Below this are several rows of input fields: "Orig Client", "Account", "Card Series", "Code Name", "Code", "Term Client", "Account", "Code", "Code Deck" (set to "Pre-assigned decks"), "Currency" (set to "USD"), "Orig Owner" (set to "all resellers"), "Group", "Term Owner" (set to "all resellers"), "Group", "Minutes, Total" (two input boxes with "min" label), "Profit, Total" (two input boxes with "%" label), "ASR Cur" (two input boxes with "%" label), "Calls Not Zero" (two input boxes), "Calls Total" (two input boxes), "ACD Cur" (two input boxes with "min" label), "Output" (set to "Web"), "Show subgroups" (checkbox), "Show subtotals" (checkbox), and six "Group By" dropdowns (#1 to #6). At the bottom left is an "Advanced" button and at the bottom right is a blue "Query" button.

## Creating Orig-Term Report

To create a report you need to specify parameters listed below and press "Query" button. Additionally you may specify the origination and termination clients and respective prefix groups and prefixes – if you do, then report will be strictly defined for selected parameters (Screenshot below). Otherwise, the report will be created for all available data.

Section	Field Description	
<b>General Report Settings</b>	Settings needed for generating correct report	
	<b>Period</b>	Specify a period for report
	<b>Orig Client</b>	Define a origination client for report
	<b>Account</b>	Enter an origination account for report
	<b>Code Name</b>	Specify code name of desired destination here
	<b>Code</b>	Specify code of desired destination here
	<b>Card Series</b>	Enter a calling card series for report
	<b>Term Client</b>	Define a termination client for report
	<b>Account</b>	Enter an termination account for report
	<b>Code Name</b>	Specify code name of desired destination here

	<b>Code</b>	Specify code of desired destination here
	<b>Code Deck</b>	Select a code deck that should be used to pull names for <i>Code Name</i> field
	<b>Currency</b>	Specify currency for report
	<b>Output</b>	List output format (HTML-document, Excel csv file)
	<b>"Show subgroups" Checkbox</b>	If enabled, data grouped by separate tables will be shown in case when more than 2 "Group by" options are used
	<b>"Show subtotals" Checkbox</b>	If enabled, subtotals for groups of rows with the same first grouping column will be shown
	<b>Group by</b>	Select grouping option
<b>Advanced Report Settings</b>	Additional parameters for filtration	
	<b>Orig Owner</b>	Define a origination reseller for report
	<b>Group</b>	Select a group which will be used as a filter criteria
	<b>Term Owner</b>	Define a termination reseller for report
	<b>Group</b>	Specify a group which will be used as a filter criteria
	<b>Minutes, Total</b>	Enter the range of total calls duration in minutes
	<b>Profit, Total</b>	Enter the range of the revenue you would like to display
	<b>ASR Cur</b>	Specify the range of "ASR Cur" for calls you would like to display
	<b>Calls Not Zero</b>	Define the range of calls, that have duration equal to or more than 1 second
	<b>Calls Total</b>	Enter the range of total calls
	<b>ACD Cur</b>	Specify the range of "ACD Cur" for calls you would like to display

Screenshot: Orig-Term Report section

Orig			Term			Profit		Total	ASR		ACD, min		Calls *				
Billed Time	Cost	Avg Rate	Billed Time	Cost	Avg Rate	USD	%	Time, min	Std	Cur	Std	Cur	Total	Not Zero	Success	Busy	No Channel
3.65	0.3650	0.1000	3.65	-1.8250	0.5000	-1.4600	-80.00	3.65	100.00 %	100.00 %	1.22	1.22	3	3	3	0	0

View Charts

As an example, if you select grouping by *Orig Client* and *Term Client*, the report will show call routes in this fashion: you'll be able to see the calls and their respective originators and terminators. If you'd add an *Orig Prefix Group* as third grouping option, in addition you'll see origination prefix groups included into report.

Description of basic report fields goes as following:

Column	Description
<b>Orig</b>	Origination info
	<ul style="list-style-type: none"> <li><b>Billed Time</b></li> </ul> Billed call time
	<ul style="list-style-type: none"> <li><b>Cost</b></li> </ul> Call cost
	<ul style="list-style-type: none"> <li><b>Avg. Rate</b></li> </ul> Average call rate
<b>Term</b>	Termination info

	<ul style="list-style-type: none"> <li>• <b>Billed Time</b></li> </ul>	Billed call time
	<ul style="list-style-type: none"> <li>• <b>Cost</b></li> </ul>	Call cost
	<ul style="list-style-type: none"> <li>• <b>Avg. Rate</b></li> </ul>	Average call rate
<b>Profit</b>	The revenue	
	<ul style="list-style-type: none"> <li>• <b>USD</b></li> </ul>	Revenue in USD (in fact, any system currency can be displayed here. In this example system currency = USD)
	<ul style="list-style-type: none"> <li>• <b>%</b></li> </ul>	Revenue in percent value
<b>Total Time, min</b>	Total calls time	
<b>ASR</b>	average successful rate (successful calls percentage)	
	<ul style="list-style-type: none"> <li>• <b>Std</b></li> </ul>	Number of calls with status "success" divided by total number of calls minus all calls with "no channel available" status
	<ul style="list-style-type: none"> <li>• <b>Cur</b></li> </ul>	Number of calls with duration > 0 divided by total number of calls
<b>ACD, min</b>	Average call duration	
	<ul style="list-style-type: none"> <li>• <b>Std</b></li> </ul>	Sum of all calls durations divided by number of calls with status "success"
	<ul style="list-style-type: none"> <li>• <b>Cur</b></li> </ul>	Sum of all calls durations divided by number of calls with duration > 0
<b>Calls</b>	Quantity of calls in database	
	<ul style="list-style-type: none"> <li>• <b>Total</b></li> </ul>	Total calls quantity
	<ul style="list-style-type: none"> <li>• <b>Not Zero</b></li> </ul>	Quantity of calls, that have duration equal to or more than 1 second
	<ul style="list-style-type: none"> <li>• <b>Success</b></li> </ul>	Quantity of calls, that have duration equal to or more than 1 second and successful end code
	<ul style="list-style-type: none"> <li>• <b>Busy</b></li> </ul>	"Busy" calls quantity
	<ul style="list-style-type: none"> <li>• <b>No Channel</b></li> </ul>	No circuit / channel available

## Knowledge Base Articles

- [Why are there differences between reports?](#)

# Profit Report

## On this page

- [Profit Report Search Form](#)
- [Creating Profit Report](#)

## Profit Report Search Form

*Profit Report* resembles previously available "logical" type of *Orig-Term Report*. The function of this report is to show profits between reseller parties (companies and managers) and clients of one, who is executing report. For example, if *Manager\_1* is executing report, he will be able to see his origination customers sending traffic to *Manager\_2*, who owns actual terminator vendors. In this case reseller permissions apply to every query, what guarantees that *Manager\_1* will not be able to see any actual name of client belonging to other manager, or other party, which restricted such access.

Main window of this section is displayed as a search form (Screenshot).

Screenshot: *Profit Report search form*

## Creating Profit Report

For generating a Profit Report you need to fill in the following fields:

Section	Field Description	
<b>General Report Settings</b>	Settings needed for generating correct report	
	<b>Period</b>	Specify a period for report
	<b>Reseller</b>	Define a reseller for report
	<b>Mode</b>	Select displaying mode of current report: <ul style="list-style-type: none"> <li>• <b>All visible</b></li> <li>• <b>Hide External Originators</b></li> <li>• <b>Hide External Clients</b></li> </ul> Note that for resellers default mode is "All visible" and cannot be changed.
	<b>Currency</b>	Select currency for report
	<b>Output</b>	List output format (HTML-document, Excel csv or xls file)
	<b>Code Deck</b>	Select a code deck that should be used to pull names for <i>Code Name</i> field
	<b>Group by</b>	Select grouping option
<b>Advanced Report Settings</b>	Additional parameters for filtration	

<b>Orig Client</b>	Define a origination client for report
<b>Account</b>	Enter an account for report
<b>Reseller</b>	Specify a reseller for report
<b>Code Name</b>	Specify code name of desired destination here
<b>Code</b>	Specify code of desired destination here
<b>Card Series</b>	Enter a calling card series for report
<b>Term Client</b>	Define a termination client for report
<b>Account</b>	Enter an account for report
<b>Code Name</b>	Specify code name of desired destination here
<b>Code</b>	Specify code of desired destination here

After you enter the desired fields and values, press the "Query" button. After the report is created, it will consist of two parts ("Packages" and "Calls") and looks like on screenshot below.

Screenshot: Profit Report section

PACKAGES									
Package Name					Cost				
FREE MINUTES					30.0000 USD				
Profitable					114.0000 USD				
test_did					1.9000 USD				
<b>Total:</b>					<b>145.9000 USD</b>				

CALLS									
▲ Total ▼ Time, min	Income			Expense			▲ Profit ▼		
	▲ Cost ▼	Avg Rate	▲ Billed Time ▼	▲ Cost ▼	Avg Rate	▲ Billed Time ▼	USD	%	
90.32	—	—	—	-26.7900	0.2966	90.32	-26.7900	0.00	

TOTAL									
							Income:	145.90 USD	
							Expense:	-26.79 USD	
							Profit:	119.11 USD	

Description of basic report fields in "Calls" part is following:

Column	Description
<b>Total Time, min</b>	Total calls time
<b>Income</b>	Origination info resembling the income
	<ul style="list-style-type: none"> <li><b>Cost</b> Call cost</li> </ul>
	<ul style="list-style-type: none"> <li><b>Avg. Rate</b> Average call rate</li> </ul>
<b>Expense</b>	Termination info resembling the expense
	<ul style="list-style-type: none"> <li><b>Cost</b> Call cost</li> </ul>



	<ul style="list-style-type: none"> <li>• <b>Avg. Rate</b></li> </ul>	Average call rate
	<ul style="list-style-type: none"> <li>• <b>Billed Time</b></li> </ul>	Billed call time
<b>Profit</b>	The revenue	
	<ul style="list-style-type: none"> <li>• <b>USD</b></li> </ul>	Revenue in USD (in fact, any currency can be displayed here)
	<ul style="list-style-type: none"> <li>• <b>%</b></li> </ul>	Revenue in percent value



**Tip:** *Total Profit* counts as sum of *Total Packages Cost* and *Calls Profit*.

# LCR Lists

## On this page

- [LCR Lists Search Form](#)
- [Forming LCR List](#)

## LCR Lists Search Form

This section's purpose is to generate target-lists of actual used traffic for specified period. The main window of this section is displayed as a search form (Screenshot):

Screenshot: LCR Lists section search form

The screenshot shows a web interface for generating LCR Lists. It features a search form with the following fields and options:

- Period:** A date range selector showing 'today', '2014-05-06 00:00:00' to '2014-05-06 23:59:59', and a time zone dropdown set to 'GMT+3'.
- Code Name:** A text input field with a search icon.
- Code:** A text input field with a search icon.
- Order by:** A dropdown menu set to 'time'.
- Under Owner:** A dropdown menu set to 'all resellers'.
- Group:** A dropdown menu.
- Currency:** A dropdown menu set to 'USD'.
- Output:** A dropdown menu set to 'Web'.
- Code Deck:** A dropdown menu set to 'Pre-assigned decks'.
- Show vendors names:** A checkbox.
- Show total calls:** A checkbox.
- Group by:** A dropdown menu set to 'code'.
- Routes limit:** A text input field.
- Query:** A blue button to execute the search.

## Forming LCR List

To make a correct query and form the list you need to fill next fields:

Field	Description
<b>Period</b>	Specify a period for report
<b>Code Name</b>	Specify code name of desired destination here
<b>Code</b>	Specify code of desired destination here
<b>Order by</b>	How to order found data, by rate or time
<b>Under Owner</b>	Specify reseller whose information should be displayed
<b>Group</b>	Select client group here
<b>Currency</b>	Specify currency for report
<b>Output</b>	List output format (HTML-document, Excel csv or xls file)
<b>Code Deck</b>	Select a code deck that should be used to pull names for <i>Code Name</i> field
<b>Group by</b>	Select grouping option, by code or code name
<b>Routes limit</b>	Limit displayed number of routes by entering a number here
<b>"Show vendors names" Checkbox</b>	Shows terminator names in report
<b>"Show total calls" Checkbox</b>	Shows total calls amount in report

After you enter the desired values, press the "Query" button. After the report is created, you will get traffic usage list for specified period, filtered per your criteria (Screenshot).

Screenshot: Traffic usage list

Code Name	Code	Total Time		#1 Route
USA	1	35.68 min	Time, min: <b>35.68</b> Rate, USD: 0.1000 ASR, %: 100.00% ACD, min: 0.99	
UKRAINE	380	18.48 min	Time, min: <b>18.48</b> Rate, USD: 0.0100 ASR, %: 100.00% ACD, min: 1.16	
UK	4405	15.5 min	Time, min: <b>15.5</b> Rate, USD: 0.0600 ASR, %: 100.00% ACD, min: 0.78	
UKRAINE UMC MOBILE	38050	8.75 min	Time, min: <b>8.75</b> Rate, USD: 0.0400 ASR, %: 100.00% ACD, min: 0.97	
UK-Fixed	44	6.57 min	Time, min: <b>6.57</b> Rate, USD: 0.8000 ASR, %: 100.00% ACD, min: 0.66	
USA-Fixed	1	3.65 min	Time, min: <b>3.65</b> Rate, USD: 0.5000 ASR, %: 100.00% ACD, min: 1.22	
USA-Fixed	12	1.85 min	Time, min: <b>1.85</b> Rate, USD: 0.0300 ASR, %: 50.00% ACD, min: 1.85	

# CDRs List

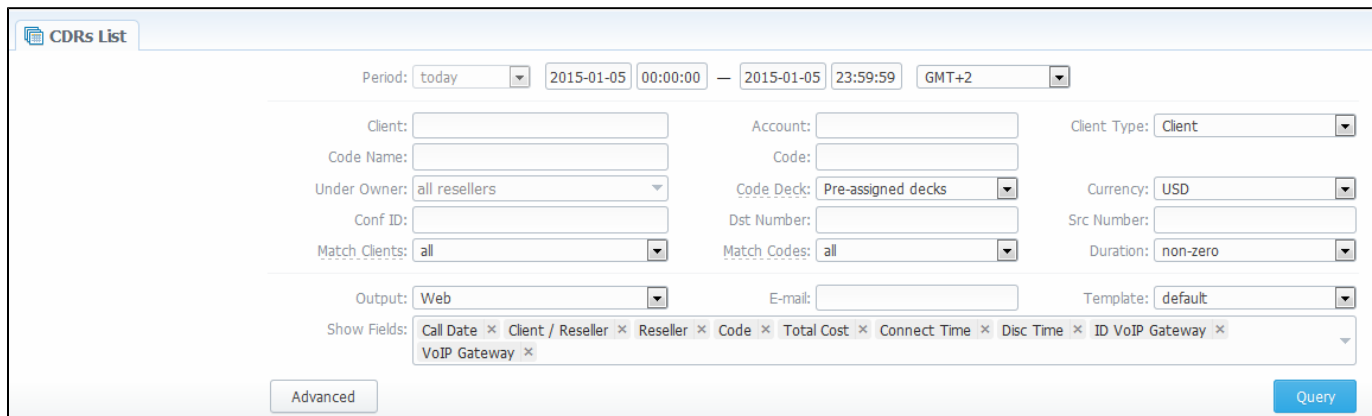
## On this page

- [CDRs List Search Form](#)
- [Forming New Report](#)
- [Selecting Displayed Report Fields](#)
- [Knowledge Base Articles](#)

## CDRs List Search Form

This section allows you to form a detailed calls statistics on each client with description of every call parameter. Main window represents a search form similar to those of other reports (Screenshot):

Screenshot: CDRs List search form



The screenshot shows the 'CDRs List' search form interface. It features a header with the title 'CDRs List' and a search bar. Below the search bar, there are several input fields and dropdown menus for filtering and displaying data. The 'Period' is set to 'today' with a date range from '2015-01-05 00:00:00' to '2015-01-05 23:59:59' and a time zone of 'GMT+2'. The 'Client' field is empty, and the 'Account' field is also empty. The 'Client Type' is set to 'Client'. The 'Code Name' field is empty, and the 'Code' field is empty. The 'Under Owner' is set to 'all resellers', and the 'Code Deck' is set to 'Pre-assigned decks'. The 'Currency' is set to 'USD'. The 'Conf ID' field is empty, and the 'Dst Number' field is empty. The 'Src Number' field is empty. The 'Match Clients' is set to 'all', and the 'Match Codes' is set to 'all'. The 'Duration' is set to 'non-zero'. The 'Output' is set to 'Web', and the 'E-mail' field is empty. The 'Template' is set to 'default'. The 'Show Fields' section includes 'Call Date', 'Client / Reseller', 'Reseller', 'Code', 'Total Cost', 'Connect Time', 'Disc Time', 'ID VoIP Gateway', and 'VoIP Gateway'. There are 'Advanced' and 'Query' buttons at the bottom.

## Forming New Report

To form a report, specify next parameters: choose client and any/all of his accounts, specify a period, phone prefix and prefix group, currency, call duration, call cost, calls route, calls result code, VoIP-host and select appropriate fields, that will be displayed in created report. Within parameters of *Output* field you can create a report as HTML-document, CSV or XLS file, or by selecting a *Delayed* parameter and entering the appropriate address you can forward the report file link to that e-mail. Then press "Query" button.

After selecting all needed parameters and fields your report will look like on screenshot below:

Screenshot: CDRs List report window

Type	Call Date	Gateway IP	Session Time	SRC Number BILL	DST Number EXT	DST Number BILL
termination	05/27/2014 11:18:33 +0000	106.193.141.52	01:22	2134012011234	610502021234	213021234
origination	05/26/2014 16:31:00 +0000	201.121.143.123	00:01	2134012011234	4405012021234	213021234
termination	05/26/2014 16:31:00 +0000	106.193.141.52	00:01	2134012011234	440502021234	213021234
termination	05/26/2014 16:30:59 +0000	106.193.141.52	00:08	2134012011234	440502021234	213021234
origination	05/26/2014 16:30:59 +0000	201.121.143.123	01:06	2134012011234	4405012021234	213021234
termination	05/26/2014 16:30:59 +0000	106.193.141.52	01:06	2134012011234	440502021234	213021234
origination	05/26/2014 16:30:59 +0000	201.121.143.123	00:08	2134012011234	4405012021234	213021234
origination	05/26/2014 16:30:58 +0000	201.121.143.123	00:20	2134012011234	4405012021234	213021234
termination	05/26/2014 16:30:58 +0000	106.193.141.52	00:20	2134012011234	440502021234	213021234
origination	05/26/2014 16:30:57 +0000	201.121.143.123	00:39	2134012011234	4405012021234	213021234
termination	05/26/2014 16:30:57 +0000	106.193.141.52	00:39	2134012011234	440502021234	213021234
origination	05/26/2014 16:30:56 +0000	201.121.143.123	01:21	2134012011234	4405012021234	213021234
termination	05/26/2014 16:30:56 +0000	106.193.141.52	01:21	2134012011234	440502021234	213021234
origination	05/26/2014 16:30:55 +0000	201.121.143.123	00:28	2134012011234	4405012021234	213021234
termination	05/26/2014 16:30:55 +0000	106.193.141.52	00:28	2134012011234	440502021234	213021234
origination	05/26/2014 16:30:55 +0000	201.121.143.123	01:22	2134012011234	4405012021234	213021234
termination	05/26/2014 16:30:55 +0000	106.193.141.52	01:22	2134012011234	440502021234	213021234
termination	05/26/2014 16:30:54 +0000	106.193.141.52	01:06	2134012011234	440502021234	213021234
origination	05/26/2014 16:30:54 +0000	201.121.143.123	01:06	2134012011234	4405012021234	213021234
origination	05/26/2014 16:30:53 +0000	201.121.143.123	00:03	2134012011234	4405012021234	213021234

## Selecting Displayed Report Fields

Fields that will be displayed in report can be selected from "Show fields" list in search form. By "Ctrl"-left click you can select single values, and by "Shift"-left click – a group of values is selected. There are some default values selected from the list as you enter CDRs List section of the system.

All possible report fields description:

Field	Description
<b>Status</b>	Call processing state
<b>Type</b>	Call route (incoming / outgoing)
<b>Call Date</b>	Call date
<b>ID Client</b>	Client's ID
<b>Client / Reseller</b>	Client or reseller name
<b>Account Name</b>	Respective used account
<b>Gateway IP</b>	Client's gateway IP
<b>Gateway Name</b>	Client's gateway name
<b>ID Reseller</b>	Reseller ID value
<b>Reseller</b>	Reseller-owner of client, if report was generated in per-client fashion
<b>Country</b>	Name of the country which corresponds to Code Name
<b>Code Name</b>	Name for respective code
<b>Code</b>	Destination code
<b>ID Packages</b>	ID of the package, that was used during billing of the respective call
<b>Packages</b>	Name of the package
<b>Package Time</b>	How much time was billed within package limit
<b>Src Number</b>	Billed source number
<b>Dst Number</b>	Billed destination number
<b>Session Time</b>	Call duration
<b>Billed Time</b>	Billed call duration
<b>Rate</b>	Destination rate

<b>Cost</b>	Call cost
<b>Extra Rate</b>	Extra destination rate (per 1 minute) that was used
<b>Extra Cost</b>	Extra call cost
<b>Total Rate</b>	Summary of destination rate and extra destination rate
<b>Total Cost</b>	Summary of call cost and extra call cost
<b>Taxes Cost</b>	Taxes cost
<b>Res Status</b>	Disconnect code status
<b>Res Code</b>	Disconnect code value
<b>CDR ID</b>	CDR ID value
<b>Conf ID</b>	Conference ID value
<b>Call ID</b>	Call ID value
<b>Call Sign</b>	Call sign value
<b>SRC Number EXT</b>	Caller number provided to VCS system from external source
<b>SRC Number BILL</b>	Phone number of the caller in billing system
<b>DST Number EXT</b>	Called number provided to VCS system from external source
<b>DST Number BILL</b>	Phone number of the called in billing system
<b>Setup Time</b>	Call setup time
<b>Connect Time</b>	Call connect time
<b>Disc Time</b>	Call completion time (disconnection)
<b>PDD</b>	Post dial delay
<b>SCD</b>	Session connect delay
<b>Local Code</b>	Local code value
<b>Custom</b>	Additional information for call (softswitch specific)
<b>Bytes IN</b>	Incoming amount of bytes
<b>Bytes OUT</b>	Outgoing amount of bytes
<b>ID VoIP Gateway</b>	VCS VoIP Gateway ID
<b>VoIP Gateway</b>	VoIP Gateway name
<b>CDR Source</b>	CDR source description

## Knowledge Base Articles

- [What to do if there is no new statistics?](#)
- [Why new xDRs are not generated?](#)

# Graphical Charts in Statistics

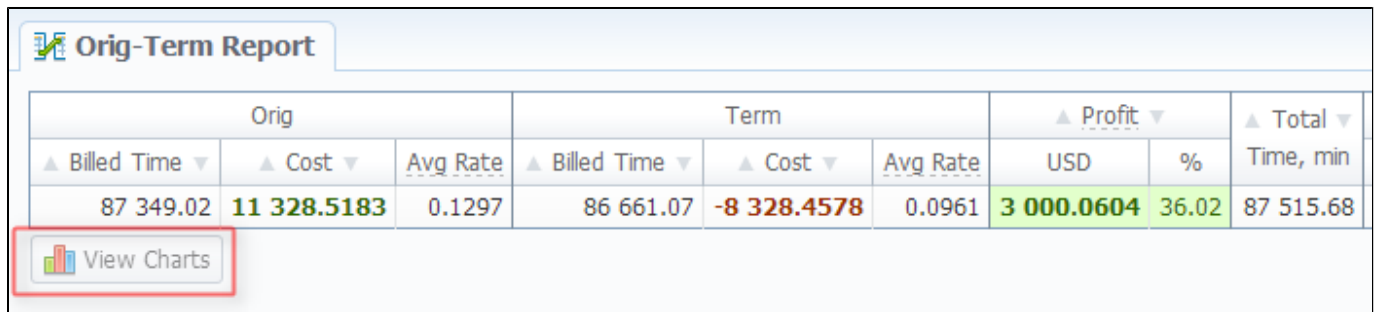
## On this page

- [Accessing The Graphical Charts](#)
- [Graphical Charts Window](#)

## Accessing The Graphical Charts

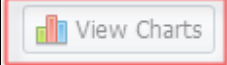
VCS incorporates a graphical charts for its Summary and Orig-Term reports. The graphical display allows for drastically better statistic information apprehension thus making data analysis even easier. To access the graphical charts, after creating a statistical report, you will have to press the "View Charts" button below the statistic tables (Screenshot down below).

Screenshot: "View Charts" button



The screenshot shows a table titled "Orig-Term Report" with columns for "Orig" and "Term" statistics. A "View Charts" button is located below the table and is highlighted with a red rectangular box.

Orig			Term			▲ Profit ▼		▲ Total ▼
▲ Billed Time ▼	▲ Cost ▼	Avg Rate	▲ Billed Time ▼	▲ Cost ▼	Avg Rate	USD	%	Time, min
87 349.02	<b>11 328.5183</b>	0.1297	86 661.07	<b>-8 328.4578</b>	0.0961	<b>3 000.0604</b>	36.02	87 515.68



## Graphical Charts Window

The set of graphical charts consists of the following ones: *Total Cost*, *Total/Billed Time*, *ASR*, *ACD*, *Calls Count* and *Income/Expense/Revenue* (available only for Orig-Term report). The Y-axis of the chart represents the main parameter – the one that chart was named after (for example, for *Total Cost* it's an amount of money, for *Total/Billed Time* it's calls time, for *ASR* it's a percent value and so on), and the X-axis represents the grouping that was done when creating a statistics report (for this purpose "Group by #" fields are used – for example, by clients, codes, gateways, days etc.).

Screenshot: Graphical charts

chart by amCharts.com

### Total Cost, USD

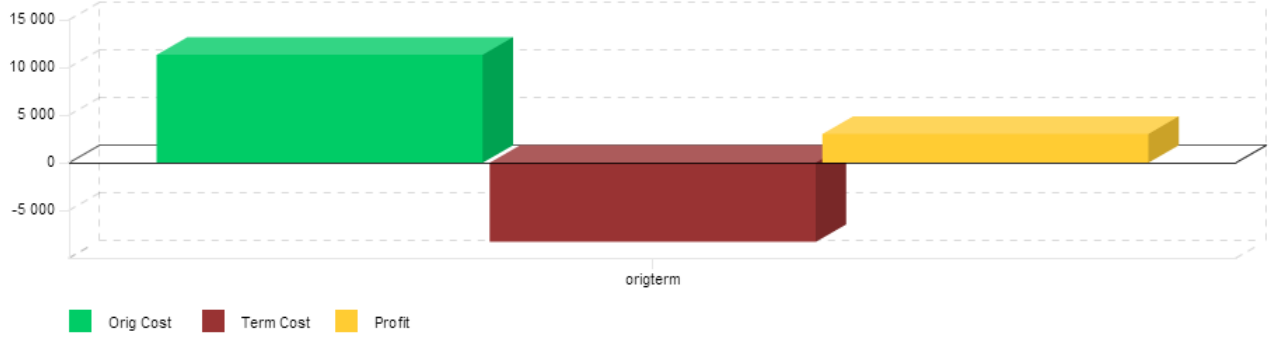


chart by amCharts.com

### Time (Total / Billed) origination

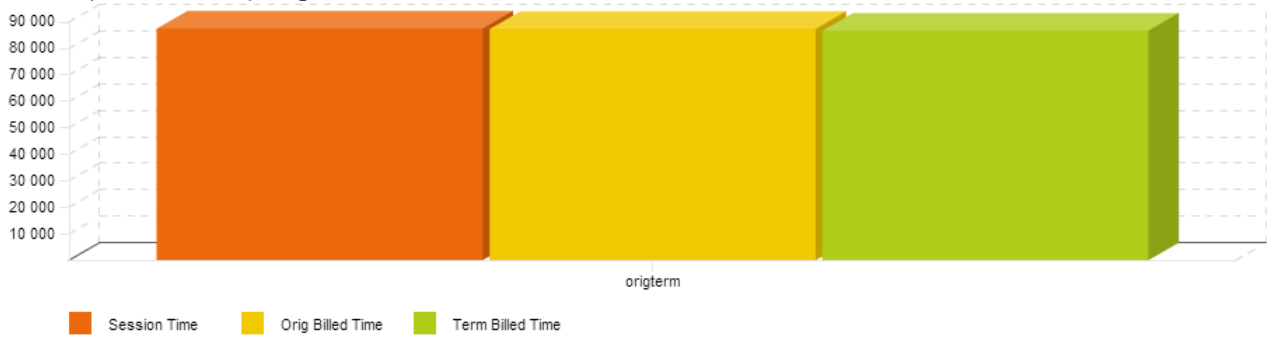


chart by amCharts.com

### ASR, %

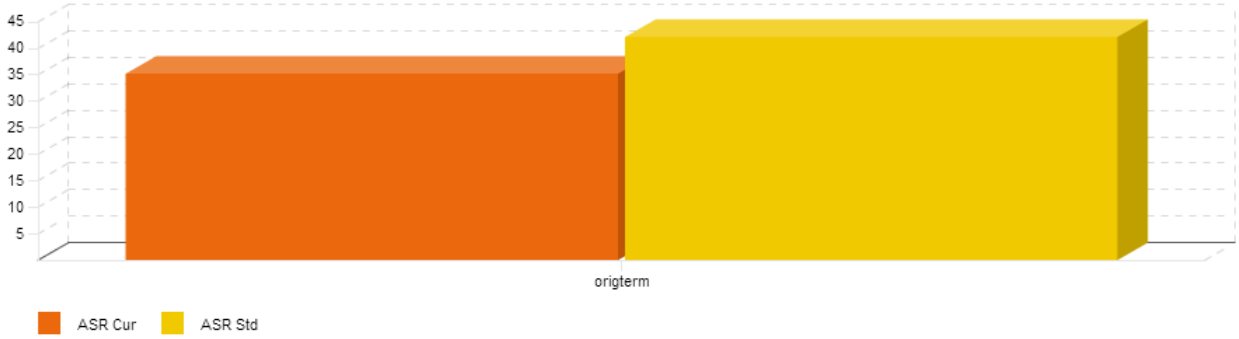


chart by amCharts.com

### ACD, %

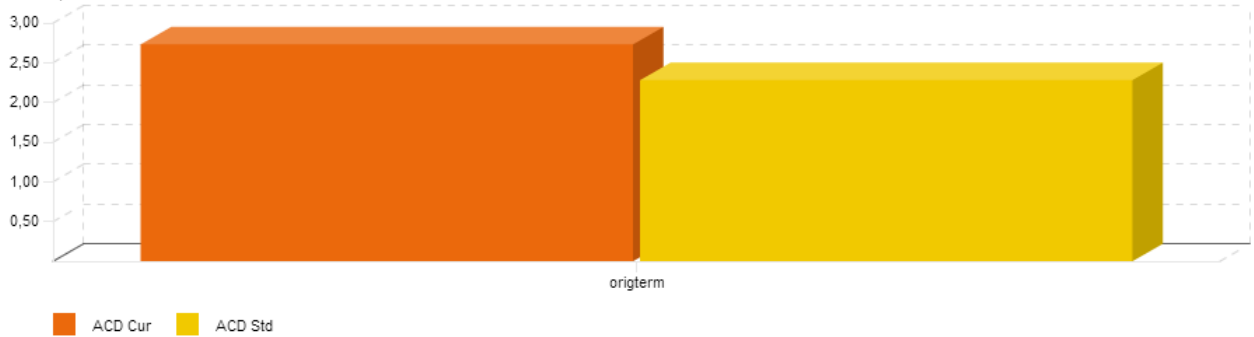
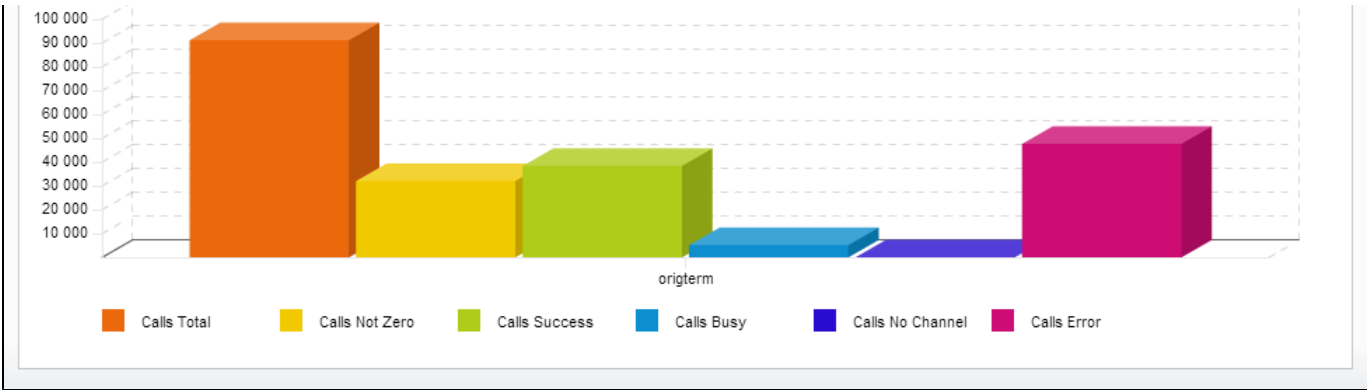


chart by amCharts.com

### Calls Count





# Mismatches Report

This section can help you find the calls or clients that were not recognized by the system due to unavailability of respective information. The main window of this section looks like on Screenshot below.

To create a report you need to specify a period in the lower form and press the "Query" button nearby. After system processes your request, you will be able to see the general info about unknown clients (left form) or unknown destinations (right form). To receive detailed info either on clients or destination press respective "Query" button.

Screenshot: Mismatches Report

### CALLS WITH UNKNOWN CLIENTS

	origination	termination	all
Total Calls	0	0	<b>0</b>
Not Zero Calls	0	0	<b>0</b>
Total Time	0 min	0 min	<b>0 min</b>

Type:

Duration:

Output:

### CALLS WITH UNKNOWN DESTINATIONS (KNOWN CLIENTS)

	origination	termination	all
Total Calls	0	0	<b>0</b>
Not Zero Calls	0	0	<b>0</b>
Total Time	0 min	0 min	<b>0 min</b>

Type:

Duration:

Output:

### CALLS WITH UNKNOWN DESTINATIONS IN RESELLERS (KNOWN RESELLERS)

	origination	termination	all
Total Calls	0	0	<b>0</b>
Not Zero Calls	0	0	<b>0</b>
Total Time	0 min	0 min	<b>0 min</b>

Type:

Duration:

Output:

## Knowledge Base Articles

- [What does it mean when client or destination is "unknown" in reports?](#)

# Calls Rerating

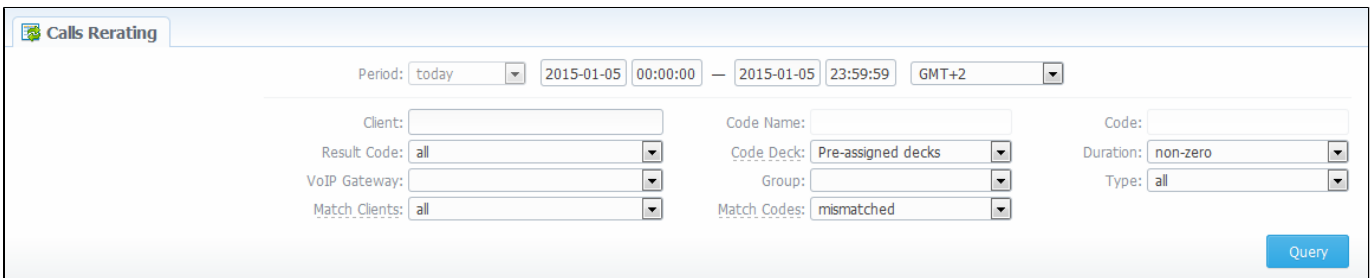
## On this page

- [Calls Rerating Search Form](#)
- [Performing A Rerating](#)
- [Knowledge Base Articles](#)

## Calls Rerating Search Form

This section can be used to rerate some calls (this is needed when, for example, a change was made to rates, currencies or client accounts or you are trying to correct errors with *Mismatches Report*). Main window of this section is displayed as a search form:

Screenshot: Calls Rerating section search form



The screenshot shows a web interface for the 'Calls Rerating' section. At the top left, there is a tab labeled 'Calls Rerating'. Below the tab, there is a search form with the following fields and options:

- Period: today (dropdown), 2015-01-05 00:00:00 – 2015-01-05 23:59:59 GMT+2 (dropdown)
- Client: (text input)
- Code Name: (text input)
- Code: (text input)
- Result Code: all (dropdown)
- Code Deck: Pre-assigned decks (dropdown)
- Duration: non-zero (dropdown)
- VoIP Gateway: (text input)
- Group: (text input)
- Type: all (dropdown)
- Match Clients: all (dropdown)
- Match Codes: mismatched (dropdown)

A blue 'Query' button is located at the bottom right of the form.

## Performing A Rerating

To perform a rerating, specify period, client, code name or phone number code and respective VoIP Gateway. Then press “*Query*” button and wait for search procedure to complete. Then confirm a rerating by pressing “*Confirm*” button.



**Tip:** “*Match Clients*” and “*Match Codes*” drop-down menus allow you to search for all calls in desired categories. Your choices are: *matched* (identified), *mismatched* (not identified), *all*.



**Tip:** Calls rerating is a time-requiring procedure, so it's not recommended to create a rerating query with large chunks of information (for example, rerating 3 million of calls at once is not recommended).

## Knowledge Base Articles

- [How to do rerating?](#)

# Reports to E-mail

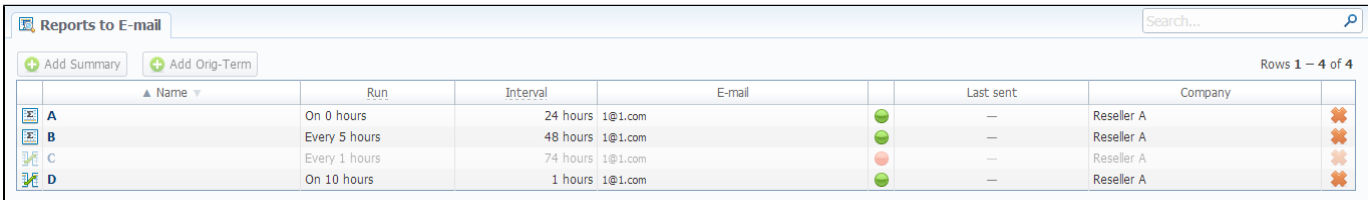
## On this page

- [Reports to E-mail List](#)
- [Forming Reports to E-mail](#)

## Reports to E-mail List

This tool allows you to send *Summary* or *Orig-Term* reports to E-mail, to keep yourself informed about traffic status without need to login into system and request reports (Screenshot).

Screenshot: Reports to E-mail section main window





Name	Run	Interval	E-mail	Last sent	Company
A	On 0 hours	24 hours	1@1.com	—	Reseller A
B	Every 5 hours	48 hours	1@1.com	—	Reseller A
C	Every 1 hours	74 hours	1@1.com	—	Reseller A
D	On 10 hours	1 hours	1@1.com	—	Reseller A

## Forming Reports to E-mail

To access it, please go to *Statistics – Reports to E-mail* section. Press respective button for adding *Summary* or *Orig-Term* preset and specify how often report should be sent in “*Run*” field, and what last amount of hours of data it should include in “*Interval*” field. Don't forget to specify the e-mail address where report should be sent and correctly set report query, the same way you do for *Summary Report* and *Orig-Term Report*. After you save your preset you will be receiving your reports via e-mail in specified timeframes. On main page you can see the following parameters:

Column	Description
<b>Name</b>	Query name
<b>Run</b>	How often a report should be created for specified interval
<b>Interval</b>	Amount of last hours of statistics a report should include
<b>E-mail</b>	E-mail address, where report should be sent
<b>Last sent</b>	Date of latest successful sending of report to e-mail
<b>Company</b>	Name of reseller which owns current query



**Tip:**  icon displays, that the query status is *Active*, and  icon shows, that the query status is *Disabled*.

# Archive Management

## On this page

- [Archive Management Section Main Window](#)
- [Active Statistics Packages](#)
- [Archived Statistics Packages](#)
- [Knowledge Base Articles](#)

## Archive Management Section Main Window

This section represents archive of system statistics packages manager. Statistics package is a pack of calls information, created during a respective day. Main window is displayed on screenshot below:

Screenshot: Archive Management section main window

ACTIVE STATISTICS PACKAGES						
Date		Total Legs	New Legs	Re-Rating Legs	Progress	
2014, APRIL (7)	<input type="checkbox"/>	78 37:42 75:24	0 00:00 00:00	0	100.00%	
2014, MARCH (4)	<input checked="" type="checkbox"/>	34 17:08 34:16	0 00:00 00:00	0	100.00%	
2014, FEBRUARY (7)	<input checked="" type="checkbox"/>	60 48:28 96:56	0 00:00 00:00	0	100.00%	

ARCHIVED STATISTICS PACKAGES			
Date	Filename	Size	
2013, SEPTEMBER (1)		0.00 MB	
2013, AUGUST (1)		0.01 MB	
2013, JULY (3)		0.88 MB	

You can download these files from the billing server:  
/usr/local/vcs/var/archive

[Process](#)

## Active Statistics Packages





*Active Statistics Packages* table houses statistics packages, that are currently present in database. Statistics packages are grouped underneath a respective month. Click on the icon to view all available packages.

*Active Statistics Packages* table columns description:

Column	Description
<b>Date</b>	System package creation date
<b>Total Legs</b>	Processed call legs quantity: <ul style="list-style-type: none"> <li>• amount of call legs</li> <li>• real call duration</li> <li>• total time of all legs for all calls (summary of origination and termination legs time)</li> </ul>
<b>New Legs</b>	Quantity of call legs that have not been processed yet: <ul style="list-style-type: none"> <li>• amount of new call legs</li> <li>• real call duration</li> <li>• time of all legs for all calls (summary of origination and termination legs time)</li> </ul>
<b>Re-rating Legs</b>	Quantity of calls queued for re-rating
<b>Progress</b>	Shows overall data processing progress

*Active Statistics Packages* are managed with 4 checkboxes:

Icon	Description
------	-------------

	Updates selected package to latest database format (useful after system update to new version)
	Moves package to archive
	Deletes package from database <i>without</i> performing balance rollback
	Deletes package from database <i>with</i> balance rollback

After "Process" button is pressed, the respective statistics package will be marked for respective operation – to rotate (move), to update, to be cleaned or to be deleted. The operation itself will be executed in background.


## Archived Statistics Packages

*Archive Statistics Packages* table houses statistics packages that are kept in archive (/var/archive folder in respect to VCS root).

*Archive Statistics Packages* table columns description:

Column	Description
<b>Date</b>	System package creation date
<b>Filename</b>	Name of the archive file which contains system package
<b>Size</b>	Size of an archive file

*Archive Statistics Packages* are managed with 2 checkboxes:

Icon	Description
	Restores system package to database
	Deletes archive file

After "Process" button is pressed, the respective statistics package will be marked for respective operation – to restore or to delete.



**Tip:** System manages the statistics packages in the background. *Backup&Rotate Manager* system module must be activated to manage the packages!



**Tip:** Moving or rotating the current day statistics package may result in errors! It is strongly recommended not to do any operations to current day's package.

## Knowledge Base Articles

- [How to do one-day statistics re-parsing](#)
- [How to rotate statistics packages?](#)
- [Why statistics is not rotated?](#)
- [How to update statistics package to the format of latest version?](#)
- [How to use Statistics Manager Tool?](#)

# Tools

This section describes everything that relates to the Tools tab of JeraSoft VCS. For more details please check the related subsections of our Guide:

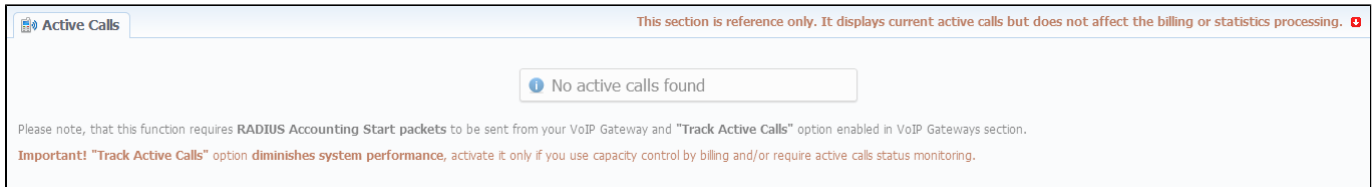
- [Active Calls](#)
- [CDRs Disputes Manager](#)
- [Factors Watcher](#)
- [Rates Analysis](#)
- [Rates Generator](#)

# Active Calls

Active Calls section provides you with easy and convenient active calls monitoring tool. Upon access you will see the full list of active calls that are currently being processed by your switch.

The options that are available to you here are the following: you can filter calls list by origination or termination client / code group / code and group them by using *Group by #* drop-down boxes.

*Screenshot: Active Calls main window*



## Knowledge Base Articles

- [Why there are no active sessions?](#)



# CDRs Disputes Manager

## On this page

- [CDRs Disputes List](#)
- [Creating New Dispute](#)
  - [Step 1. Selecting File and Specifying All Required Parameters](#)
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## CDRs Disputes List



*CDRs Disputes Manager* is full-featured add-on of the system, which allows you to make comparison of:


- CDRs given by your client/vendor with ones stored in the system;
- CDRs taken right away from switch with the CDRs stored in the system.

Screenshot: *CDRs Disputes List*

ID	Client / Account	Period	Total Qty	No L	No E	Updated
17	rework terminator / all accounts	12/04/2014 – 01/07/2014	7414	7414	55	15/07/2014 12:18:01 UTC
16	Alex Silver new / all accounts	10/06/2014 – 10/06/2014	7	7	0	15/07/2014 12:10:44 UTC
14	Alex Silver / all accounts	10/06/2014 – 10/06/2014	7	7	0	15/07/2014 12:03:56 UTC
12	rework originator / all accounts	10/06/2014 – 29/06/2014	54	54	0	15/07/2014 11:15:32 UTC

Column	Description
<b>ID</b>	ID of a dispute
<b>Client/Account</b>	lient and its accounts of a current dispute
<b>Period</b>	Period of compared CDR files
<b>Total Qty</b>	Total amount of compared CDRs
<b>No L</b>	Number of CDRs which were not found in the system
<b>No E</b>	Number of CDRs which were not found in the external CDR file
<b>Updated</b>	Date of the last dispute update

Icon	Description
	Is used to open a dispute details window
	Is used to delete a dispute from the system

 If *CDRs Disputes Manager* is not displayed in *Tools* section, you need to enable it in *System Roles* section.

## Creating New Dispute

Whole creating dispute process logically divided in three steps.

### Step 1. Selecting File and Specifying All Required Parameters

To create a new dispute press "Add New Dispute" button. You need to specify the next information in the pop-up window:

Screenshot: *Adding New Dispute. Step 1*

**Import**

<p>Client: <input type="text"/></p> <p>Account: <input type="text"/></p> <p>Type: <span style="border: 1px solid #ccc; padding: 2px;">origination</span> ▼</p> <p>Code Name: <input type="text"/></p> <p>Code: <input type="text"/></p> <p>Code Deck: <span style="border: 1px solid #ccc; padding: 2px;"> </span> ▼</p>	<p>Select File: <span style="border: 1px solid #ccc; padding: 2px;">Choose File</span> No file chosen</p> <p>Date Format: <span style="border: 1px solid #ccc; padding: 2px;">auto</span> ▼ <span style="border: 1px solid #ccc; padding: 2px;">auto</span> ▼</p> <p>Period: <span style="border: 1px solid #ccc; padding: 2px;">last week</span> ▼ <span style="border: 1px solid #ccc; padding: 2px;">2015-03-09</span> — <span style="border: 1px solid #ccc; padding: 2px;">2015-03-15</span></p> <p><span style="border: 1px solid #ccc; padding: 2px;">GMT+2</span> ▼</p> <p>Override timezone: <input type="checkbox"/></p>
--	--

Process »

Field	Description
<b>Client</b>	Specify a client for the dispute
<b>Account</b>	Specify an account for the dispute
<b>Type</b>	Choose the type of compared CDRs: <ul style="list-style-type: none"> <li>origination</li> <li>termination</li> </ul>
<b>Code Name</b>	Specify code name of desired destination for comparison
<b>Code</b>	Specify code of desired destination for comparison
<b>Code Deck</b>	Select a code deck that should be used for the current dispute
<b>Select File</b>	Upload the CDR file for comparison
<b>Date Format</b>	Specify date format of CDRs <div style="border: 1px solid #ffc000; padding: 10px; margin-top: 10px; background-color: #fff9c4;">  Please note that by default date format is set "auto" which has the following format YYYY-MM-DD HH:MM:SS.           </div>
<b>Period</b>	Specify a period for a dispute
<b>"Override timezone" checkbox</b>	If enabled, the timezone in the importing file will be replaced with the specified timezone in the "Period" section

When you filled in all required fields press "Process>>" button.

## Step 2. Recognizing The File

System will recognize the file, and display few first rows of it. Note that comparison of CDRs can be made only by the following parameters: SRC Number, DST Number, Session Time, Connect Time, Disconnect Time, so if there's a need, make changes to the recognition of data and press "Process>>" again (Screenshot).

Screenshot: New dispute creation. Step 2

Import					
ROWS AND COLUMNS SELECT					
SRC Number	DST Number	Session Time	Connect Time	Disconnect Time	Skip
Src Number	Dst Number	Session Time	Connect Time	Disc Time	<input type="checkbox"/>
38050	380501112233	25	08/10/2014 18:34:16 +0000	08/10/2014 18:34:41 +0000	<input type="checkbox"/>
38050	380501112233	21	08/10/2014 18:31:31 +0000	08/10/2014 18:31:52 +0000	<input type="checkbox"/>
38050	380501112233	68	08/10/2014 18:29:28 +0000	08/10/2014 18:30:36 +0000	<input type="checkbox"/>
38050	380501112233	63	08/10/2014 17:30:15 +0000	08/10/2014 17:31:18 +0000	<input type="checkbox"/>
38050	380501112233	30	08/10/2014 17:30:28 +0000	08/10/2014 17:30:58 +0000	<input type="checkbox"/>
38050	380501112233	5	08/10/2014 17:30:34 +0000	08/10/2014 17:30:39 +0000	<input type="checkbox"/>
380509595465	380504523212	109	08/10/2014 15:39:53 +0000	08/10/2014 15:41:42 +0000	<input type="checkbox"/>
380509595465	380504523212	6	08/10/2014 15:38:22 +0000	08/10/2014 15:38:28 +0000	<input type="checkbox"/>

### Step 3. Receiving Results of comparison

After you press "Process>>", the system will process the comparison and "Dispute Details" window will be opened, where you need to click on "Update" button and specify Compare Options in respective pop-up window, then click on "Refresh" button for showing the disputes' results (Screenshots below).

Screenshot: Disputes Details window. Step 3

Dispute Details
✕

Update

COMPARISON OPTIONS

SRC Number:

DST Number:

Connect Time:

Disconnect Time:

Session Time:

Please press the "Update" button, select the comparison options and press the "Refresh" button

Field	Description
<b>SRC Number</b>	Enter number of the last digits for source number comparison
<b>DST Number</b>	Set number of the last digits for destination number comparison
<b>Connect Time</b>	Specify possible time offset (in seconds) between the system and external CDRs
<b>Disconnect Time</b>	Define possible time offset (in seconds) between the system and external CDRs
<b>Session Time</b>	Specify possible time offset (in seconds) between the system and external CDRs

Screenshot: Disputes Details window. Step 3

Dispute Details						
Update						
Rows 1 – 20 of 10856 Pages: 543 1 2 3 4 5 ▶						
	SRC Number	DST Number	▲ Connect Time ▼	▲ Disconnect Time ▼	▲ Session Time ▼	
L	No matched CDRs					
E	380509595123	380671240103	2014-09-24 16:41:36+00	2014-09-24 16:42:14+00	38	
L	No matched CDRs					
E	380509595923	380671240103	2014-09-24 16:41:40+00	2014-09-24 16:42:14+00	34	
L	380509595123	380671240103	2014-09-24 16:41:40+00	2014-09-24 16:42:14+00	34	
E	380509595123	380671240103	2014-09-24 16:41:40+00	2014-09-24 16:42:16+00	36	
L	380509595123	380671240103	2014-09-24 16:44:02+00	2014-09-24 16:44:28+00	26	
E	No matched CDRs					
L	380631224578	380687892315	2014-09-24 16:44:03+00	2014-09-24 16:44:39+00	36	
E	380631224578	380687892315	2014-09-24 16:44:03+00	2014-09-24 16:44:39+00	36	
L	No matched CDRs					
E	380662569874	380502992345	2014-10-01 11:17:33+00	2014-10-01 11:19:33+00	120	
L	No matched CDRs					
E	380662569874	380502992345	2014-10-01 11:17:33+00	2014-10-01 11:19:33+00	120	
L	No matched CDRs					
E	380662569874	380502992345	2014-10-01 11:17:33+00	2014-10-01 11:19:33+00	120	
L	No matched CDRs					
E	380662569874	380502992345	2014-10-01 11:17:34+00	2014-10-01 11:19:32+00	118	
L	No matched CDRs					
E	380662569874	380502992345	2014-10-01 11:17:34+00	2014-10-01 11:19:32+00	118	
L	No matched CDRs					
E	380662569874	380502992345	2014-10-01 11:17:34+00	2014-10-01 11:19:34+00	120	

Icon	Description
E	Red color indicates the mismatched CDRs (external or local, it depends on the marked letter L or E)
L	Yellow color indicates the matched CDRs with offset (external or local, it depends on the marked letter L or E)
L	Green color indicates the exact matched CDRs (external or local, it depends on the marked letter L or E)

Also you can change the results mode using special search form (Screenshot below). Here you can set exact *DST Number* or *SRC Number* for showing results only for that number, also filtration can be made by *Type* of compared records, and results can be also saved in .csv format using *Output* field. For applying the made changes press "Query" button, and if you want to clear the specified settings press "Reset" button.

Screenshot: Dispute Details window. Search form

Dispute Details						
Update						
Rows 1 – 20 of 10856						
	SRC Number	DST Number	▲ Connect Time ▼	▲ Disconnect Time ▼	▲ Session Time ▼	
L	No matched CDRs					
E	380509595123	380671240103	2014-09-24 16:41:36+00	2014-09-24 16:42:14+00		
L	No matched CDRs					
E	380509595923	380671240103	2014-09-24 16:41:40+00	2014-09-24 16:42:14+00		
L	380509595123	380671240103	2014-09-24 16:41:40+00	2014-09-24 16:42:14+00	34	
E	380509595123	380671240103	2014-09-24 16:41:40+00	2014-09-24 16:42:16+00	36	
L	380509595123	380671240103	2014-09-24 16:44:02+00	2014-09-24 16:44:28+00	26	
E	No matched CDRs					
L	380631224578	380687892315	2014-09-24 16:44:03+00	2014-09-24 16:44:39+00	36	
E	380631224578	380687892315	2014-09-24 16:44:03+00	2014-09-24 16:44:39+00	36	
L	No matched CDRs					
E	380662569874	380502992345	2014-10-01 11:17:33+00	2014-10-01 11:19:33+00	120	
L	No matched CDRs					
E	380662569874	380502992345	2014-10-01 11:17:33+00	2014-10-01 11:19:33+00	120	
L	No matched CDRs					
E	380662569874	380502992345	2014-10-01 11:17:33+00	2014-10-01 11:19:33+00	120	
L	No matched CDRs					
E	380662569874	380502992345	2014-10-01 11:17:34+00	2014-10-01 11:19:32+00	118	

SRC Number:

DST Number:

Type:

Output:

## Mass Edit Button

You may change the status of a group of disputes by using "Mass Edit" button (Screenshot). In the following window you can specify the status of selected disputes in respective "Status" field, then press "Process" button and all changes will be applied.

Screenshot: Mass Edit button

The screenshot shows a web application interface for 'CDRs Disputes'. At the top left, there is a search bar and a 'Search...' button. Below the search bar, there are two buttons: 'Add New Dispute' and 'Mass Edit'. The 'Mass Edit' button is highlighted, and a modal window is open over it. The modal has a title 'Mass Edit', a dropdown menu for 'Status' currently set to 'In Proces', and a blue 'Process' button. Below the modal is a table with 5 rows and 8 columns. The columns are: ID, Name, Period, GMT+3, Total Qty, No L, No E, and Updated. The table data is as follows:

ID	Name	Period	GMT+3	Total Qty	No L	No E	Updated
26	Alex S	10/06/2014 - 10/06/2014	GMT+3	7	7	0	06/08/2014 13:30:02 +0300
16	Alex S	10/06/2014 - 10/06/2014	GMT+3	7	7	0	29/07/2014 16:59:06 +0300
17	rework terminator / all accounts	12/04/2014 - 01/07/2014	GMT+3	7414	7414	55	15/07/2014 15:18:01 +0300
14	Alex Silver / all accounts	10/06/2014 - 10/06/2014	GMT+3	7	7	0	15/07/2014 15:03:56 +0300
12	rework originator / all accounts	10/06/2014 - 29/06/2014	GMT+3	54	54	0	15/07/2014 14:15:32 +0300

At the bottom right of the table area, there is a pagination control showing 'Rows 1 - 5 of 5' and 'Pages: 1'.

# Factors Watcher

## On this page

- [Factors Watcher List](#)
- [Creating New Query](#)
- [Configuring Watcher Rules](#)

## Factors Watcher List

This section represents built-in monitoring tool, that watches over different parameters and generates alerts if some conditions are met. Main section window looks like on Screenshot:

Screenshot: Factors Watcher section main window

ID	Name	Watch Rules	Query
2	A Analyze by: Summary report Check time: 30 / 30 min No check has been made yet	0	Client: - Code Name: - Group By: - Owner: - Code: - VoIP GW: -
3	B Analyze by: CDRs List report Check time: 60 / 10 min No check has been made yet	0	Client: - Code Name: - Group By: - Owner: - Code: - VoIP GW: -

## Creating New Query

The tool workout is based on periodical queries of statistic information. To create a new query press “New Factors Watcher” button. You'll need to specify next parameters in a new window (Screenshot below):

Screenshot: Adding new Factors Watcher query

**New Factors Watcher**

Name:

Analyze by:

Analyze mode:

Check every:

Analyze interval of:

Time zone:

Period Start:

---

**QUERY**

Client:  Account:

Code Name:  Code:

Under Owner:  Code Deck:  VoIP Gateway:


Group By #1:  Group By #2:  Group By #3:

Field	Description
Name	Query name

<b>Analyze by</b>	Select base report (Summary or CDRs List) as base for current query. Different reports provide different set of parameters that are available for monitoring. For instance, <i>CDRs List</i> allows you to manipulate with phone numbers, while <i>Summary</i> allows such operations with ACD and ASR
<b>Analyze mode</b>	Specify the type of period which should be analyzed. There are two types of period available: <ul style="list-style-type: none"> <li>• <b>Fixed period</b> means that it will be analyzed specified amount of minutes in the past from the Factors Watcher tool starting point</li> <li>• <b>Calendar period</b> the Factors Watcher tool starting point</li> </ul>
<b>Check every, min</b>	How often to perform checks
<b>Analyze interval of, min</b>	What interval of time to check
<b>Timezone</b>	Specify timezone that will be used when pulling reports / blocking routes
<b>Period Start</b>	Enter the specific time to start counting the period from
<b>Calendar interval</b>	What interval of calendar time to check (each hour, each day, etc.)
<b>Client</b>	Select a client
<b>Account</b>	Select an account
<b>Code Name</b>	Select a code group
<b>Code</b>	Specify the code
<b>Under Owner</b>	Specify a Reseller
<b>Code Deck</b>	Select a code deck to pull code names from
<b>VoIP Gateway</b>	Select a VoIP gateway
<b>Group by #</b>	Group query by selectable parameter (client, account, code group, code or Voip gateway)
<b>"Test Query" Button</b>	Press this button to test your query as <i>Summary Report</i> or <i>CDRs List</i> report for period specified Check Every and Analyze Interval of fields

When you click "OK", new query will appear on the list in main window. You can edit properties of this query later by pressing  icon.

## Configuring Watcher Rules

Next step you need to take is configure the watcher rules – what parameters under which conditions to monitor. To do this click on Query name or  icon. In new window (Screenshot down below) press "add rule" button and fill the set of fields to specify the appropriate rule.

Screenshot: Editing Factors Watcher rules

Rules List
test

+ add rule

Priority	Match				Factors	Action	Lock Period	Periodic lock	Expiration Date
	Call Origin	Client	Account	VoIP Gateway					
0	all				time_total < 50	Alert	0 min	<input type="checkbox"/>	

Match — you can use "\*" wildcard in these fields.

Factors — you should list watch rules in this field delimited by ";", list of correct fields: time\_total, time\_billed, calls\_total, cost\_total, calls\_notzero, calls\_success, calls\_busy, calls\_nochannel, calls\_error, acd\_std, acd\_cur, asr\_std, asr\_cur, pdd, scd.

OK
Cancel
Apply

The set of rules depends on how many parameters you defined in "Group by #" fields when current query was created. For example, if you defined a client in query, you will be able to configure clients in watcher rules, etc. Here is the full list of possible configurable fields:

Field	Description												
<b>Priority</b>	Define a priority of rules execution, if they have similar Match parameters												
<b>Match</b>	A set of parameters that are used as base for checks <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 30%;"><b>• Call Origin</b></td> <td>Type of route to check (origination, termination or both)</td> </tr> <tr> <td><b>• Client</b></td> <td>What client to apply rules to</td> </tr> <tr> <td><b>• Account</b></td> <td>What account to apply rules to</td> </tr> <tr> <td><b>• Code Name</b></td> <td>What code name to apply rules to</td> </tr> <tr> <td><b>• Code</b></td> <td>What code to apply rules to</td> </tr> <tr> <td><b>• VoIP Gateways</b></td> <td>What VoIP gateway to apply rules to</td> </tr> </table>	<b>• Call Origin</b>	Type of route to check (origination, termination or both)	<b>• Client</b>	What client to apply rules to	<b>• Account</b>	What account to apply rules to	<b>• Code Name</b>	What code name to apply rules to	<b>• Code</b>	What code to apply rules to	<b>• VoIP Gateways</b>	What VoIP gateway to apply rules to
<b>• Call Origin</b>	Type of route to check (origination, termination or both)												
<b>• Client</b>	What client to apply rules to												
<b>• Account</b>	What account to apply rules to												
<b>• Code Name</b>	What code name to apply rules to												
<b>• Code</b>	What code to apply rules to												
<b>• VoIP Gateways</b>	What VoIP gateway to apply rules to												
<b>Factors</b>	Factors that are applied to current rule. Rules must be listed with delimiting symbol ";". Correct list of rules: <i>time_total, time_billed, calls_total, cost_total, calls_notzero, calls_success, calls_busy, calls_nochannel, calls_error, acd_std, acd_cur, asr_std, asr_cur, pdd, scd</i> . For example, if you enter " <i>time total &gt; 100</i> " this will mean that when total calls time count for respective match parameters goes over 100 minutes, system will create an alert												
<b>Action</b>	An action that should be taken if rule match is found												
<b>Lock Period</b>	If action was block of number, destination or code, then define duration of that block in this field												
<b>Periodic lock</b>	If either calendar period or fixed period are enabled, this lock will be expired at the end of a given period												
<b>Expiration Date</b>	Specify date when the rule should be automatically deleted												



# Rates Analysis

Rates Analysis is an advanced feature of VCS Rates Management Module, that allows you to analyze and compare rates within VCS's web-interface without use of any third-party software. Main window looks like a search form (Screenshot):

Screenshot: Rates Analysis section search form

Field	Description
<b>Rate Tables</b>	Specify rate tables for analysis
<b>Originators</b>	Enter originators for analysis
<b>Terminators</b>	Enter terminators for analysis
<b>Master table</b>	Specify a rate table which rates will be compared (Please note that this field is active only during rate tables analysis)
<b>Rate Group</b>	Set a group where these rates belongs to
<b>Code Name</b>	Select a code group
<b>Outlook</b>	Select a form of a query display: <ul style="list-style-type: none"> <li>• <b>rates comparison</b></li> <li>• <b>least costs list</b></li> </ul>
<b>Get margins for</b>	Define a rate table from which respective margins will be getting
<b>Output</b>	Choose the form in which the query will be received: <ul style="list-style-type: none"> <li>• <b>Web</b></li> <li>• <b>Excel CSV</b></li> <li>• <b>Excel XLS</b></li> </ul>
<b>Code</b>	Specify the code
<b>Code Deck</b>	Select a code deck to pull code names from <ul style="list-style-type: none"> <li>• <b>Pre-assigned decks</b> use of code decks assigned to each clients' rate table</li> </ul>
<b>Actual on</b>	Define the day and time
<b>Group by</b>	Group query by selectable parameter <ul style="list-style-type: none"> <li>• <b>code</b> aggregation by default output</li> <li>• <b>code name</b> grouping by rate rows with the same names and rates for all codes in each rate table</li> </ul>

<b>Country</b>	Specify a country
<b>Currency</b>	Select a currency
<b>Rate age</b>	Define the number of days
<b>Check-box "simulate long codes"</b>	Check if a rate table does not have codes which are presented in other tables for simulating them using shorter codes

To analyze and compare different rates select one or few rate tables in the form to the left (analysis is divided by originator's rates, terminator's rates and rate tables), specify code names or specific code (you can use «\*» sign to specify all), date for which these rates were actual, desirable output format and press «Query» button.

System will form a list of rates with prices for each destination. The highest rate available for destination is colored in red, the lowest – in green, and middle rates are colored in black. In «Group by» field you can define how you want to sort the resulting data – by codes or code names.

If you checked «simulate long codes» checkbox, system will try to simulate the longest available code with shorter one. For example, we analyze 2 rate tables, one of which has code 380, and the other has 380 and 38044 codes. When mentioned checkbox is active, the first rate table will have unavailable 38044 code simulated with the price of available 380. Rates such as these have «Simulated» label when you hover mouse pointer over them, and are colored in light-red, light-green and grey respectively.

Also, you can analyze margins by selecting a base rate table in «Get margins for» field.

«Outlook» field allows you to build resulting data in simple comparison list or LCR table, if you prefer that kind of outlook.

# Rates Generator

## On this page

- [Adding New Rates Generator Query](#)
- [Setting Additional Options](#)
  - [Optimization Options](#)
  - [Adjust Options](#)
  - [Advanced Options](#)
  - [Quality Options](#)
- [Adding New Rule](#)
- [Adding Source to the Rule](#)

## Adding New Rates Generator Query

*Rates Generator* is a useful tool when you need to create a price list from data taken from multiple sources, such as another rate sheets or your provider's rate tables. You can do that and more, if you use following instructions.

The price list is created by running a set of code picker rules that are stored in a preset. To create new preset, go to *Tools – Rates Generator* section and press «*New Rates Generator*» button. Set name and reseller for the preset and press «*OK*». Also, you can set additional parameters in current window or by clicking on a name of your new preset and going to the "*Parameters*" section tab (Screenshot below):

Screenshot: Configuring Rates Generator query

Field	Description
<b>Name</b>	Name of rate table that should be created or updated
<b>Reseller</b>	Specify reseller to whom newly created rate table should belong
<b>Code Deck</b>	Select a code deck that will be used to search for codes in source and name destination codes in new price list
<b>Currency</b>	Specify the currency of rates in new price list
<b>Description</b>	Additional information about current rate table

## Setting Additional Options

To refine your results, you can use following additional criteria. These additional options are also presented in the "*New Rates Generator*" window or in the "*Parameters*" section tab and you can do the following:

### Optimization Options

Screenshot: Optimization options checkboxes

**New Rates Generator**

Name:

Reseller:

Code deck:

Currency:

Description:

**SIMPLE OPTIMIZATION**

Mode:

**VERTICAL OPTIMIZATION**

Target < parent:  %

Target > parent:  %

**HORIZONTAL OPTIMIZATION**

Target < parent:  %

Target > parent:  %

**ADJUST RESULTS**

Rate:  DKK

Setup Fee:  DKK

Min Time:  sec

Interval:  sec

Grace Time:  sec

Time Profile:

**ADVANCED OPTIONS**

Detect fake:

Skip distance:  %

Rate position:

**QUALITY OPTIONS**

Analyze period:  hours

Code min time:  min

Unmatched price:

Checkbox	Description
<b>Simple Optimization</b>	Applies same price for all codes inside same code name by using three options
	<ul style="list-style-type: none"> <li><i>min</i> minimal available price</li> </ul>
	<ul style="list-style-type: none"> <li><i>max</i> maximal available price</li> </ul>
	<ul style="list-style-type: none"> <li><i>avg</i> average price of all available</li> </ul>
<b>Vertical Optimization</b>	Enables merging of longer codes into shorter ones, if respective rates satisfy <i>Target &lt; Parent</i> and <i>Target &gt; Parent</i> settings
	<ul style="list-style-type: none"> <li><i>Target &lt; Parent</i> If current price of the rate which currently is being analyzed for optimization with it's parent (shorter code for vertical and same length code with most frequency of same price for horizontal) is less for entered percent or less, then it will be optimized</li> </ul>
	<ul style="list-style-type: none"> <li><i>Target &gt; Parent</i> If current price of the rate which currently is being analyzed for optimization with it's parent (shorter code for vertical and same length code for horizontal) is more for entered percent or more, then it will be optimized</li> </ul>
<b>Horizontal Optimization</b>	Enables application of same rate to codes of same lengths, which belong to the same code name, if respective rates satisfy <i>Target &lt; Parent</i> and <i>Target &gt; Parent</i> settings
	<ul style="list-style-type: none"> <li><i>Target &lt; Parent</i> If current price of the rate which currently is being analyzed for optimization with it's parent (shorter code for vertical and same length code with most frequency of same price for horizontal) is less for entered percent or less, then it will be optimized</li> </ul>
	<ul style="list-style-type: none"> <li><i>Target &gt; Parent</i> If current price of the rate which currently is being analyzed for optimization with it's parent (shorter code for vertical and same length code for horizontal) is more for entered percent or more, then it will be optimized</li> </ul>

## Adjust Options

"Adjust Results" checkbox enables results adjusting by data from currently selected Code Deck. For example, if your rules provided you with codes 380 and 38050, but your code deck has only code 38050 recorded, only that 38050 will get into resulting price list.

Screenshot: "Adjust Results" checkbox

The screenshot shows the 'New Rates Generator' interface. The 'ADJUST RESULTS' checkbox is checked and highlighted with a red box. Other visible fields include Name, Reseller (Reseller A), Code deck, Currency (DKK), and Description. Optimization options for Simple, Vertical, and Horizontal are shown with target percentages. Advanced options include Detect fake (5), Skip distance (10%), and Rate position (1). Quality options include Analyze period (24 hours), Code min time (60 min), and Unmatched price (100). Buttons for OK, Cancel, and Apply are at the bottom right.

Field	Description
<b>Rate</b>	Define a rate for codes which are present in code deck, but were not provided by your rules, when performing <i>Adjust results</i>
<b>Setup Fee</b>	Define setup fee for those rates
<b>Min Time</b>	Define minimum time for those rates
<b>Interval</b>	Define interval for those rates
<b>Grace Time</b>	Define grace time for those rates
<b>Time Profile</b>	Define time profile for those rates

## Advanced Options

Screenshot: Rates Generator Advanced Options

The screenshot shows the 'New Rates Generator' interface with the 'ADVANCED OPTIONS' section highlighted by a red box. The 'ADJUST RESULTS' checkbox is also checked. The 'ADVANCED OPTIONS' section includes fields for Detect fake (5), Skip distance (10%), and Rate position (1). The 'QUALITY OPTIONS' section includes Analyze period (24 hours), Code min time (60 min), and Unmatched price (100). Buttons for OK, Cancel, and Apply are at the bottom right.

Field	Description
<b>Detect fake</b>	Enable detection of fake rates if at least specified number of rates is present. The mechanism is following: if you enter "3" and your rules provided you with 3 different rates for some destination, the cheapest rate will be compared to the direct average of those 3 rates. If the difference is more, than provided in <i>Skip distance</i> , then rate is considered fake and removed from result

<b>Skip distance</b>	A percentage value of difference between current rate and direct average when performing <i>Detect fake</i>
<b>Rate position</b>	Define what cheapest rate of all to provide as a result (for example, if you enter "1" – system will take cheapest rate, if "2" – second cheapest etc.)

## Quality Options

Screenshot: Rates Generator Quality Options

The screenshot shows the 'New Rates Generator' interface with several sections:

- General Settings:** Name, Reseller (Reseller A), Code deck, Currency (DKK), and Description.
- OPTIMIZATION:** Includes Simple, Vertical, and Horizontal optimization options with target percentages.
- ADJUST RESULTS:** Includes Rate, Setup Fee, Min Time, Interval, Grace Time, and Time Profile.
- ADVANCED OPTIONS:** Detect fake (5), Skip distance (10%), Rate position (1).
- QUALITY OPTIONS (highlighted):** Analyze period (24 hours), Code min time (60 min), Unmatched price (100).

Buttons: OK, Cancel, Apply.

Field	Description
<b>Analyze period</b>	Define a number of hours to analyze for picking ACD and ASR quality
<b>Code min time</b>	Define a number of minutes that should be available for each code that satisfies quality parameters
<b>Unmatched price</b>	Define price for all codes which do not satisfy quality parameters

## Adding New Rule

After pressing "OK" button in the "New Rates Generator" window you will go to a new window. By clicking here on "Add rule" button you will go to a new pop-up window, where you can set one rule to be added to query. Here is what you can specify in rule's settings (Screenshot):

Screenshot: Rates Generator "Add Rule" window

**Add Rule**
Test

---

**RATES FILTER**

Code:

Code Name:

Time Profile:  ▼

Rate Group  ▼

---

**QUALITY FILTER**

ASR:  —  %

ACD:  —  min

---

**FORCE RATES SETTINGS**

Min Time:  sec

Interval:  sec

Grace Time:  sec

Setup Fee:  USD

Time Profile:  ▼

**SOURCES** +

i No Sources selected yet

**MARGINS** +


i No Margins added yet


OK
Cancel
Apply

Section	Fields And Description
<b>Rates Filter</b>	Set basic parameters of your rule here
	<ul style="list-style-type: none"> <li>• <b>Code</b> Pick a code for current rule</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Code Name</b> Pick group of codes for current rule</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Time Profile</b> Select a time profile for codes that will be picked from sources</li> </ul>
<b>Quality Filter</b>	Set quality parameters of your rule here
	<ul style="list-style-type: none"> <li>• <b>ASR, %</b> Specify ASR ranges that should be used when picking destinations from sources</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>ACD, min</b> Specify ACD ranges that should be used when picking destinations from sources</li> </ul>
<b>Force Rates Settings</b>	Specify additional parameters that should be noted when picking destinations from sources ( <i>Setup Fee, Min. Time, Interval, Grace Time, etc.</i> )
<b>Sources</b>	Select one or multiple sources for picking data for new price list

<b>Margins</b>	Specify ranges of rates that should be picked from sources and apply respective margins
----------------	---

Working with this tool is really simple – specify your Filters, select a source, specify code and margins and when you click «OK», your selections will be added as new rule to the template. By adding multiple rules you can create a price list that you currently require (for example, pick one destination from *Provider A*, other one – from *Provider B*, and rest of destinations from all remaining providers). To generate a resulting price list, click on «Generate» button.


 **Tip:** Please note that rules abide following priority: top placed rule is picked first and if some of the lower priority rules are able to provide same codes, those codes will be ignored.

 **Tip:** You can drag rules to change priority.

### Adding Source to the Rule

For specifying a source in Rate Generator’s Rule, during adding or editing the Rule, simply click on green plus sign in “Sources” section, hereinafter specify the kind of source you need from drop-down list, i.e. “Terminators” or “Rate Tables”, and start typing the name of terminator or rate table respectively in the field under the drop-down list (Screenshots below):

Screenshot: Adding Source to the rule

 If you want to use Quality Options for Rate Generator, you have to define a Terminator as a Source for Rate Generator’s rule.





**Tip:** Taking Terminator as a Source instead of its termination Rate Table gives possibility to use recently changed table automatically for Terminator as a whole.



Please note that Rate Generator creates rates in "*unconfirmed*" status. It means that you need to check newly created rates and confirm them by going to *Rate Table* section.

# Routing Details

This document will describe everything that concerns the routing capabilities of JeraSoft VoIP Carrier Suite. Please note, that for all this functions to be available to you, your JeraSoft VCS installation should include the Routing Module.

## Introduction to VCS Routing Module

JeraSoft VCS is able to provide so-called Dynamic Routing features, also often called External Routing. Depending on your preferred switch manufacturer, VCS is able to utilize these functions via RADIUS Protocol or SIP Redirect Server. To find out more, regarding possible options for your switch manufacturers, please consult VCS Integration Manual or contact JeraSoft Support.

In VCS, Dynamic Routing works based on three principles: Routing Plans, Routing Policies and Routing Table generation. So, how can you set it working? A few easy steps:

**Step 1:** You need to create so-called Routing Plan, which consists of rules that describe your routing preferences and other criteria;

**Step 2:** You need to choose desired policy for your rules – a special formula to decide which routes should get top priority (for example, this way you decide whether you want to do LCR or Quality Routing);

**Step 3:** Assign created Routing Plan to your origination customer(s), wait a little bit till Routing Table is created and you are all set!

Please check the subsections below to get more detailed information regarding JeraSoft VCS Routing Module. Main module instruments can be found in *Routing* section of the system, which will appear if module is activated.

- [Routing Plans](#)
- [Routing Presets](#)
- [Routing Analysis](#)
- [Dynamic Routing Policies](#)
- [Dynamic Routing Table](#)

# Routing Plans

## On this page

- [Routing Plans List](#)
- [Adding New Routing Plan](#)
- [Editing Routing Rules](#)
- [Knowledge Base Articles](#)

## Routing Plans List

*Routing Plans* section becomes accessible if Routing Module is enabled in your JeraSoft VCS installation. To access *Routing Plans* section, please log in to your system and go to *Routing – Routing Plans*.

*Routing Plans* is something that manages your routing rules for your customers, providers and destinations. Each routing plan should be assigned to a respective customer (originator) for routing to work. While creating routing plan you are able to combine dynamic and static routing rules and assign separated rules for each and every of your destinations. This section displays a list of created routing plans (Screenshot):

Screenshot: *Routing Plans* section main window

ID	Name	Reseller	Code Deck	Rules Hunting	DR Order	Rules
5	DR: Complex LCR	Company Name	—	longest only	by code / appeal	2
4	DR: Complex Quality	Company Name	—	longest only	by code / appeal	1
12	DR: DID + Simple LCR	Company Name	—	longest only	by code / appeal	2
3	DR: Proportional	Company Name	—	longest only	by code / appeal	1
2	DR: Simple LCR	Company Name	DEFAULT	longest only	by code / appeal	1
1	DR: Simple Quality	Company Name	—	all matching	by appeal / code	3
9	NEW	Company Name	—	all matching	by code / appeal	3
6	Plan1	Company Name	DEFAULT	all matching	by code / appeal	14
10	test	Reseller_A	DEFAULT	all matching	by appeal / code	3
8	Test_1	Reseller_A	—	longest only	by code / appeal	3
11	Test_2	Company Name	Default_new	all matching	by appeal / code	0

Column	Description
<b>ID</b>	Your routing plan ID
<b>Name</b>	A name for your routing plan
<b>Reseller</b>	Choose a reseller-owner of this routing plan. Additionally, you may choose any additional resellers that will be able to use this routing plan in «Allow Routing Plan only to following resellers» to the right
<b>Code Deck</b>	Select a Code Deck if you want to route by code names
<b>Rules Hunting</b>	Choose a hunting mode. Note, that this only applies to rules listed in Routing Plan Two options are available
	<ul style="list-style-type: none"> <li>• <b>longest only</b></li> </ul> Routing will find only the longest matching code and will stop looking for shorter codes that comply to routing rule otherwise
	<ul style="list-style-type: none"> <li>• <b>all matching</b></li> </ul> All possible matches will be found, including even shortest codes
<b>DR Order</b>	Select mode of routes sorting in routing table. The options here are: <i>by appeal</i> – routes will be sorted in accordance to their resulting appeal value; <i>by code / appeal</i> – routes will be grouped by codes and then sorted by appeal value
	<ul style="list-style-type: none"> <li>• <b>by appeal / code</b></li> </ul> Routes will be sorted in accordance to their resulting appeal value and then grouped by codes

	<ul style="list-style-type: none"> <li>• <b>by code / appeal</b></li> </ul>	Routes will be grouped by codes and then sorted by appeal value
<b>Rules</b>	An amount of rules, which refers to the respective routing plan	

## Adding New Routing Plan

To create a new routing plan press the "New Routing Plan" button, and fill all needed fields in the pop-up window.

Screenshot: "New Routing Plan" window

Section	Fields description	
<b>General information</b>	General routing plan information	
	• <b>Name</b>	Title of a routing plan
	• <b>Reseller</b>	Define the reseller/owner of current routing plan
	• <b>Parent Routing Plan</b>	Specify DR plan which will be parent for current plan
	• <b>Code Deck</b>	Select a Code Deck if you want to route by code names
	• <b>Origination Limits</b>	Define company or companies which will have restriction in usage of this routing plan (also this restriction will be extended to their sub-companies)
	• <b>Termination Limits</b>	Select company or companies which will have limit in termination for vendors who use it (sub-companies are not included)
<b>Rules processing</b>	Options of rules processing	

<ul style="list-style-type: none"> <li>• <b>Rules Hunting</b></li> </ul>	<p>Select a hunting mode (the way how rules will be executed). They are the following:</p> <ul style="list-style-type: none"> <li>• <b>longest only</b> – routing will find only the longest matching code</li> <li>• <b>all matching</b> – all possible matches will be found, including even the shortest codes</li> </ul>
<ul style="list-style-type: none"> <li>• <b>DR Order</b></li> </ul>	<p>Specify a method of routes sorting in routing table. The options are:</p> <ul style="list-style-type: none"> <li>• <b>by appeal / code</b> – routes will be sorted in accordance to their resulting appeal value and then grouped by codes</li> <li>• <b>by code / appeal</b> – routes will be grouped by codes and then sorted by appeal value</li> </ul>
<ul style="list-style-type: none"> <li>• <b>PM</b></li> </ul>	<p>Define a Profit Margin value for current rule here</p>
<ul style="list-style-type: none"> <li>• <b>Vendor Limit</b></li> </ul>	<p>Determine the number of used routes from the same vendor (if a vendor has multiple accounts)</p>



Please note that "Origination Limit" and "Termination Limit" fields are visible only during:


- new routing plan creation;
- editing of already created routing plan if specified *Reseller* of this routing plan has at least one sub-reseller or manager.

## Editing Routing Rules

Now you need to fill it with routing rules (Screenshot below). To do that click on routing plan's name, click «add rule» and fill the following:

Screenshot: Routing plan contents

Field	Description
<b>Priority</b>	Define a priority of rules execution, if they have similar code or code name specified
<b>Code</b>	<p>Enter a code which will be used in current routing rule, use * as wildcard.</p> <p>If <b>DID type</b> for current routing rule is selected, you may specify a <b>code</b>:</p> <ul style="list-style-type: none"> <li>• <b>Any destination</b> – rules with longer codes will be ahead of DID route, possibly leaving it out entirely if 'longest only' mode is used ( * wildcard will be used as DID code)</li> <li>• <b>Full DID</b> – DID route will always be the first route (entire DID number will be used as code)</li> </ul>
<b>Code Name</b>	You may select a code name here if you have code deck attached to routing plan. This code name is used in same fashion as code – to perform routing based on group of codes

<b>Type</b>	Select a type for routing for current rule: <ul style="list-style-type: none"> <li>• <b>Static</b></li> <li>• <b>Dynamic</b></li> <li>• <b>DID</b></li> </ul>
<b>Terminator / Policy</b>	If you selected static type, you may specify a terminator here; if you selected dynamic type, specify routing policy for current rule
<b>PM</b>	Define a <i>Profit Margin</i> value for current rule here
<b>Params</b>	A number of additional parameters available here <ul style="list-style-type: none"> <li>• <b>Time Profile</b> specify time profile</li> <li>• <b>Number Length</b> set minimum and maximum length of destination number, that will be matched by this routing rule</li> <li>• <b>Balancing</b> define percentage or proportion amount of traffic which will be sent to respective vendor who participates in balancing  <div style="border: 1px solid #ccc; padding: 5px; margin-top: 5px;">  Please note that after changing <i>balancing value</i>, it is needed to restart SIP and/or RADIUS daemons. </div> </li> <li>• <b>Route within</b> specify list of termination routing groups by which the route will be selected. If nothing is specified - looks only for accounts without specified groups (Please note this parameter available only for dynamic rules)</li> <li>• <b>Allow rule for</b> select list of origination routing groups for which the current rule will be allowed. If nothing is specified - works for all accounts.</li> </ul>
<b>Capacity</b>	Limit capacity for current rule (leave blank for unlimited)
<b>Stop Hunt</b>	If this field is checked, this means that rule search will be stopped on that rule and rules after the checked rule will not be executed for current call

Also, you may go to *Routing Plan* tab to edit any information you entered during plan creation process or to *Import / Export* tab to import or export list of routing rules respectively. Please pay attention that the column order in importing file must correspond to presented on the screenshot below.

**Screenshot: Importing file format**

code	code name	priority	type	client	account	policy	profit margin	time profile	num length min	num length max	balance	orig groups	term groups	capacity	hunted
	Afghanistan MTN mobile	0	static	test							100				
	Afghanistan MTN mobile	1	static	test							100				
	Azerbaijan Azercell mobile	0	static	test							50				
	Azerbaijan Azercell mobile	0	static	test							50				
	Azerbaijan Azerfon mobile	0	static	test							50				
	Azerbaijan Bakcell mobile	0	static	test							50				
	Cambodia	0	static	test							100				
	Cambodia mobile	0	static	test							100				
	Cambodia mobile	1	static	test							100				
	Chad Airtel mobile	0	static	test							100				
	Chad Airtel mobile	1	dynamic			Simple LCR					100				
216*		0	dynamic			Simple LCR					100				
220*		0	dynamic			Simple LCR					100				
297*		0	static	test							100				
370*		0	dynamic			Simple LCR					100				



**Note:** After all info is entered and rules created, you need to go to *Management - Clients* section and assign this routing plan to one or more of your origination clients.

## Knowledge Base Articles

- [How to route by SRC Number / Orig Group?](#)
- [US Billing & Taxation](#)


- How to set calls to come from one specific originator?
- How to set up a functional capacity?
- How to exclude specific vendor from Dynamic Routing?

# Routing Presets

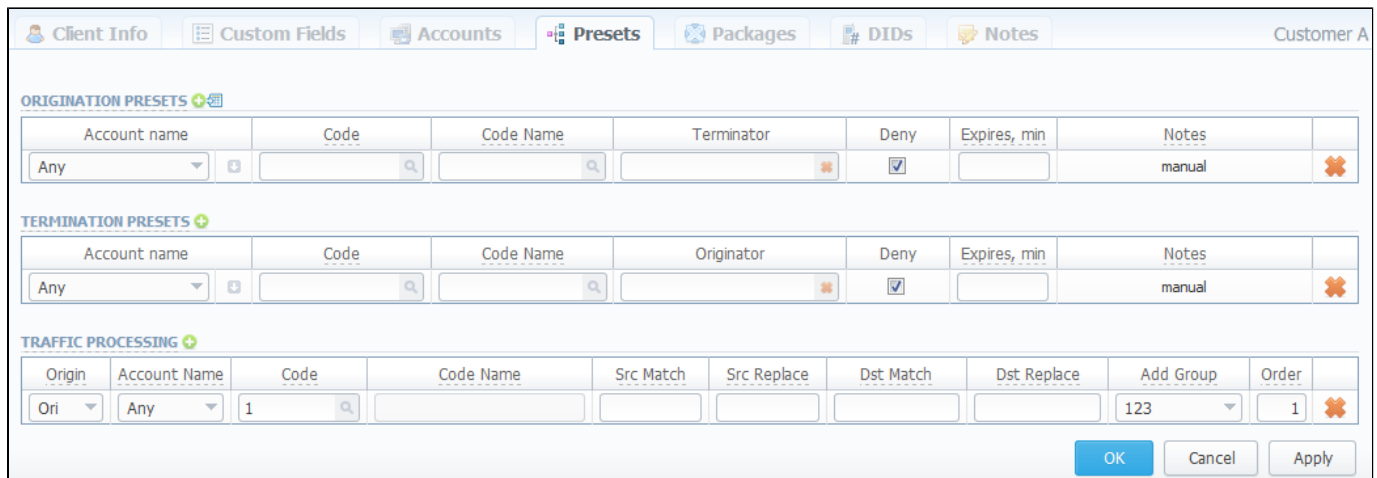
## On this page

- [Routing Presets Contents](#)
- [Adding Routing Presets](#)
- [Performing Number Translation](#)

## Routing Presets Contents

Routing Presets is additional instrument that you may use to block codes or whole destinations while doing Dynamic Routing. Routing Presets are accessible through *Management – Clients* section, by clicking on  icon next to specific client name. When you click it, you will see the following window:

Screenshot: Routing presets contents



The screenshot shows a software interface for configuring routing presets. At the top, there are tabs for Client Info, Custom Fields, Accounts, Presets (selected), Packages, DIDs, and Notes. The main area is divided into three sections:


- ORIGINATION PRESETS:** A table with columns: Account name (Any), Code, Code Name, Terminator, Deny (checked), Expires, min, and Notes (manual). There is a search icon next to the Code field and a delete icon (X) at the end of the row.
- TERMINATION PRESETS:** A table with columns: Account name (Any), Code, Code Name, Originator, Deny (checked), Expires, min, and Notes (manual). There is a search icon next to the Code field and a delete icon (X) at the end of the row.
- TRAFFIC PROCESSING:** A table with columns: Origin (Ori), Account Name (Any), Code (1), Code Name, Src Match, Src Replace, Dst Match, Dst Replace, Add Group (123), and Order (1). There is a search icon next to the Code field and a delete icon (X) at the end of the row.

At the bottom right, there are buttons for OK, Cancel, and Apply.

There, you are able to add origination and termination presets, to block desired destination or code by clicking on «Deny» box. Also, the same window allows you to perform different number translations under «Traffic Processing». These translation rules use POSIX expressions syntax. For example, if number is 123#456, Match field is ^123#(.) and Replace field is 789\1, then resulting number will be 789456.

Please browse the full list of fields and descriptions of the routing presets window below.

## Adding Routing Presets


To add a route press  icon near "Origination" and / or "Termination" presets and enter all required information in next fields:

Field	Description
<b>Account name</b>	Client's account that should be used in current routing rule
<b>Code</b>	Specify a code of destination here (use * as wildcard)
<b>Code Name</b>	Or select a destination name in this field if applicable
<b>Terminator</b>	Specify a vendor or specific vendor account for whom this routing rule will work (i.e all calls coming from clients to that specified vendor will be denied to route)
<b>Originator</b>	Define a customer for whom this routing rule will work
<b>Deny</b>	Enable this to deny current route selection




<b>Expires, min</b>	Set a duration in minutes, for which the block should be active (leave blank to block forever)	
<b>Added</b>	When and how the rule was originally added	
	• <i>manual</i>	Added using this section
	• <i>auto</i>	Added by Factors Watcher



**Tip:** By pressing  icon near "Origination Presets" rubric you will get an access to "Mass Import" feature. This feature allows you to add new presets to already existing or to purge all existing presets and add new ones.

## Performing Number Translation

To perform a number translation, press  icon near "Traffic Processing" rubric and fill the following fields:

Field Name	Field Description	
<b>Origin</b>	Specifies, when current translation rule will be applied	
	• <i>ORIG</i>	For calls originated from a client
	• <i>TERM</i>	For calls terminated to a client
	• <i>DR</i>	On Dynamic Routing, before sending calls to a terminator
<b>Account Name</b>	Select a respective account here	
<b>Code</b>	Specify a code of destination here (use * as wildcard)	
<b>Code Name</b>	Or select a destination name in this field if applicable	
<b>Src Match</b>	In this field you may set a template by which a number will be analyzed, and if template matches the number, the translation will occur in respect to settings in Src Replace field	
<b>Src Replace</b>	Put a resulting action in this field, that will be performed, if translation process will take place	
<b>Dst Match</b>	In this field you may set a template by which a number will be analyzed, and if template matches the number, the translation will occur in respect to settings in Dst Replace field	
<b>Dst Replace</b>	Allows you to put matched calls into specified Origination Routing Group	
<b>Add Group</b>	Allows you to put matched calls into specified Origination Routing Group	
<b>Order</b>	Sets rules ordering, first matched rule will stop further number translations	

# Routing Analysis

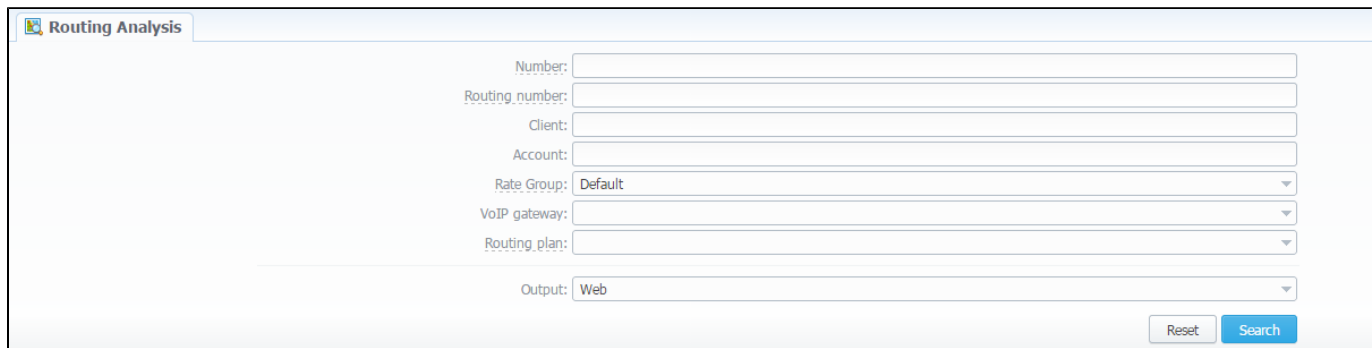
## On this page

- [Routing Analysis Search Form](#)
- [Forming DR Analysis Report](#)
- [Knowledge Base Articles](#)

## Routing Analysis Search Form

*Routing Analysis* section represents a routes analyzer tool that allows you to manage dynamical routes and simulate different routing models without hurting live voice traffic. This section can be accessed if you go to *Routing – Routing Analysis*. It should be noted, that this tool can be of use only when you are using Dynamic Routing feature. Main window of *Routing Analysis* section represents a search form with following parameters (Screenshot):

Screenshot: DR Analysis search form



The screenshot shows a web-based search form titled "Routing Analysis". It contains several input fields and dropdown menus. The fields are: "Number:" (text input), "Routing number:" (text input), "Client:" (text input), "Account:" (text input), "Rate Group:" (dropdown menu with "Default" selected), "VoIP gateway:" (dropdown menu), "Routing plan:" (dropdown menu), and "Output:" (dropdown menu with "Web" selected). At the bottom right, there are two buttons: "Reset" and "Search".

Field	Description
<b>Number</b>	Enter a phone number here to define a destination (you can use «*» as any symbol, for example, 380* means any number that begins with 380)
<b>Routing number</b>	Specify the number supplied by LRN DIP providers. Note that the original destination number will be preserved in response during performing routing for the specified number
<b>Client</b>	Select a client you want to create report about
<b>Account</b>	Select an account you want to create report about
<b>Rate Group</b>	A group, which this rate belongs to. Refers to Jurisdictional Billing and Routing Module
<b>VoIP gateway</b>	Select a desired VoIP gateway here
<b>Routing Plan</b>	Select here some specific routing plan
<b>Output</b>	Select result output format (web, XLS or CSV file)

When all required information is entered, press «Query» button.

## Forming DR Analysis Report

Here is how an analysis report may look like (Screenshot):

### Screenshot: DR Analysis report

Number: <b>38044</b>		Client: <b>Client_originator</b>		Client Capacity: 5   0 active calls				
Routing Plan: <b>DR: Simple Quality</b>		Destination: <b>380</b>   UKRAINE		Account Capacity: —   0 active calls				
DR Order: <b>by appeal</b>		Orig Rate: <b>0.9100 USD</b>		Reseller Capacity: —   0 active calls				
Rules Hunting: <b>all matching</b>								
<b>TYPE: NORMAL</b>								
Rank		Appeal	Terminator	Code	Term Rate	Account IP / Name	Dst Number	VoIP gateway
9	  	0.4000	Vendor Lotos account_2	3	0.4000 USD	184.176.103.55/32	38044	Any
10	  	0.9000	Vega account_1	3	0.9000 USD	184.173.103.52/32	38044	Any
11	  	0.9000	Mango lo_quality	3	0.9000 USD	106.193.141.52/32	38044	Any
12	  	0.9000	Mango account_1	3	0.9000 USD	145.27.99.8/32	38044	Any
13	  	0.9100	Vendor Figaro account_1	380 UKRAINE	0.9100 USD	184.173.103.52/32	09838044	Any

The resulting list shows detailed information regarding routing, including route availability / unavailability, profit margin control, reseller / group limitation, resulting appeal, code rate etc.



#### Note

Routing Analysis shows routes based on routing table built on last run of Dynamic Routing Manager. So won't be able to see last changes with Routing Rules until Dynamic Routing Manager will be restarted.

## Knowledge Base Articles

- [Why does not Routing Analysis show routing according to rule's changes?](#)
- [Why there is no route observed?](#)
- [What to do if routing doesn't work?](#)

# Dynamic Routing Policies

This section simply lists currently available routing policies for VCS. They currently are (Screenshot):

Screenshot: DR Policies section main window



The screenshot shows a web interface for 'DR Policies'. At the top left is a search bar with the text 'DR Policies' and a magnifying glass icon. To the right is a search input field labeled 'Search...'. Below the search bar is a table with two columns: 'Status' and 'Name'. The table contains five rows, each with a green status indicator and a policy name. The policy names are 'Complex LCR', 'Complex Quality', 'Proportional', 'Simple LCR', and 'Simple Quality'. At the bottom right of the table area, there is a pagination control showing 'Rows 1 - 5 of 5', 'Pages: 1', and a page number '1'.


Status	Name
●	Complex LCR
●	Complex Quality
●	Proportional
●	Simple LCR
●	Simple Quality

Policy	Description
<b>Complex LCR</b>	Three cheapest routes are sorted by quality
<b>Complex Quality</b>	Three routes with most quality are sorted by price
<b>Proportional</b>	The lower the price and higher the quality route has, the more priority it gets
<b>Simple LCR</b>	Generic price-based routing
<b>Simple Quality</b>	Generic quality-based routing

You may browse each policy routing formula by clicking on respective policy's name. Please do not change formulas to avoid unexpected routing results.

# Dynamic Routing Table

JeraSoft VCS solution operates with its own Routing Table, which is automatically created in defined regular periods of time to provide the «dynamic» part of the Routing. This Routing Table includes latest changes to whole routing process, that include all latest changes made to system configuration, such as clients or rates update, changes to routing plans, accounts reconfiguration etc.

It is always good idea to recreate your routing table, to be able to see how your routing will work with current settings. Of course, if you don't have time to wait till it is created automatically, you can do that in manual mode. To generate routing table manually, please go to *System – Task Scheduler*, and click on the respective  button. The routing table will be generated shortly after.

# Configuration

This section of our Guide contains everything that relates to the *Configuration* tab of JeraSoft VoIP Carrier Suite. For more details please go to the related subsections:

- [Code Decks](#)
- [Currencies](#)
- [Payment Accounts](#)
- [Payment Terms](#)
- [Payment Gateways](#)
- [Time Profiles](#)
- [Taxes Profiles](#)
- [Groups](#)
- [Invoices Templates](#)
- [VoIP Gateways](#)
- [Settings](#)

# Code Decks

## On this page

- [Code Decks List](#)
- [Creating New Code Deck](#)
- [Managing Code Decks](#)
  - [Adding Codes](#)
  - [Importing Codes](#)
  - [Exporting Codes](#)

## Code Decks List

This section houses all code decks – name sets for your codes. By having multiple code decks you can freely operate in different names for same codes and change them on the fly. Main window of this section is presented on Screenshot:

*Screenshot: Code Decks section main window*



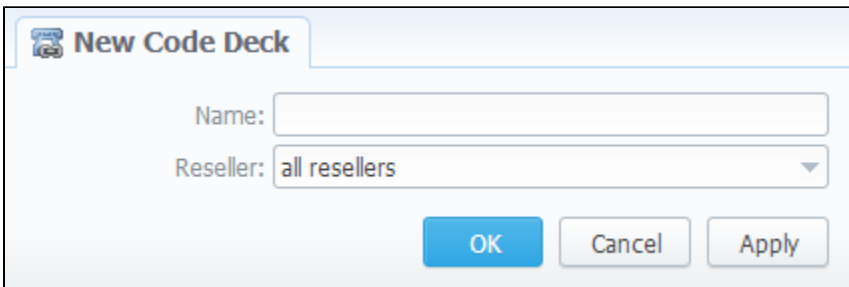
ID	Deck Name	Reseller	Codes		
1	DEFAULT	any reseller	66932		
2	A	any reseller	0		
3	B	Reseller A	0		
4	C	Reseller B	0		

The deck itself consists of destination code and destination name. Thus, having lots of code decks, you may have lots of different name-sets for same destination codes.

## Creating New Code Deck

To create a code deck, press “New Code Deck” button and specify the deck name and reseller it belongs to (Screenshot):

*Screenshot: New Code Deck window*



**New Code Deck**

Name:

Reseller:

## Managing Code Decks

To manage your code deck left-click on the deck's name.

In the window with the list of all existing codes (Screenshot below) you will be able to perform next operations:

*Screenshot: Code deck's contents*

Code	Code Name	Country		
1	North America			
1201555	USA Directory Assistance			
1201763	United States - OffNet			
12017632	United States - OffNet			
12017636	United States - OffNet			
12017637	United States - OffNet			
12017638	United States - OffNet			
12017639	United States - OffNet			
1202555	USA Directory Assistance			
1203547	United States - OffNet			
1203555	USA Directory Assistance			
1203902	United States - OffNet			
1204	Canada-Manitoba			

## Adding Codes

When you press "New Code" button, you will be able to add a code group to your deck. The pop-up window contains the following parameters (Screenshot):

Screenshot: New Code Window

**New Code**
DEFAULT

Code Deck: **DEFAULT**

Code:

Code Name:

Country:

Field	Description
<b>Code</b>	Destination code
<b>Code Name</b>	Displayed name of a code group
<b>Country</b>	Which country the codes in current group will belong to

## Importing Codes

It is the possibility to import a list of codes and code names from file, the whole import process can be logically divided in two steps.

The first step is to go to the "Import Codes" tab (Screenshot below) then select a file to import and set some additional configurations.

Screenshot: "Import Codes" Step 1

**Import Codes**
DEFAULT

**FILE PROCESS**

Select file to import:  No file chosen

Fields Delimiter:

**IMPORT PROCESS**

Deck update mode:

On errors:



These settings are the following:

Section	Field	Description
File Process	Select file to import	Select an import file
	Fields delimiter	Specify here a delimiter symbol
Import Process	Deck update mode	Specify the code deck update mode. There are three possible modes: <ul style="list-style-type: none"> <li><b>Import only not existing codes</b></li> <li><b>Import all codes (update existing)</b></li> <li><b>Import all codes (purge code deck first)</b></li> </ul>
	On errors	Define what to do if an inconsistency or error was found in importing file: <ul style="list-style-type: none"> <li><b>Import correct rows and show all found errors</b></li> <li><b>If errors are found, abort import and show all errors</b></li> </ul>

After selecting a file and specifying all additional parameters click "Process>>" button.

On the second step system will recognize the file, and display few first rows of it. Then you need to select the header of each column and then press "Import" button.

Screenshot: "Import Codes" Step 2

ROWS AND COLUMNS SELECT			
			Skip
1	Code Name-1		<input type="checkbox"/>
2	Code Name0		<input type="checkbox"/>
4	Code Name2		<input type="checkbox"/>
5	Code Name3		<input type="checkbox"/>
6	Code Name4		<input type="checkbox"/>
7	Code Name5		<input type="checkbox"/>
8	Code Name6		<input type="checkbox"/>
9	Code Name7		<input type="checkbox"/>
10	Code Name8		<input type="checkbox"/>
11	Code Name9		<input type="checkbox"/>
12	Code Name10		<input type="checkbox"/>
13	Code Name11		<input type="checkbox"/>
14	Code Name12		<input type="checkbox"/>
15	Code Name13		<input type="checkbox"/>
16	Code Name14		<input type="checkbox"/>
17	Code Name15		<input type="checkbox"/>
18	Code Name16		<input type="checkbox"/>

Return Import

After you press "Import" button, system will start importing process. When progress-bar reaches 100%, your import is done!

The import file may have this structure:

Code	Code Name	Country
55	Brasil	Brasil
5531, 5531210	Brasil – Belo Horizonte	Brasil
55312111	Brasil – Belo Horizonte	Brasil

## Exporting Codes

This feature allows you to export a contents of a code deck to file. To export info to file, do the following: go to "Export Codes" section tab (Screenshot down below) and specify the following: delimiter symbol in "Fields delimiter" field and first CSV file row as a title row with a "With headers row" checkbox (optional). After you press "OK" button, you will be prompted to save a file. Enter respective path on your hard drive.

Screenshot: "Export Codes" section tab

The screenshot shows a software interface with three tabs: "Codes List", "Import Codes", and "Export Codes". The "Export Codes" tab is active and highlighted. In the top right corner of the window, the word "DEFAULT" is displayed. Below the tabs, there is a "Fields delimiter:" label followed by a text input field containing a comma character. Below the input field is a checkbox labeled "With headers row", which is currently unchecked. In the bottom right corner of the window, there are two buttons: a blue "OK" button and a grey "Cancel" button.

# Currencies

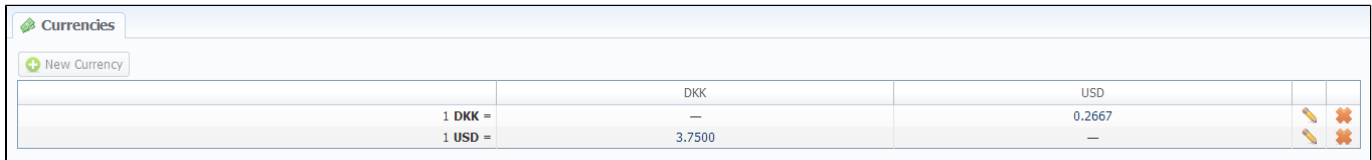
## On this page

- [Currencies List](#)
- [Adding New Currency](#)
- [Specifying Currencies Rate](#)

## Currencies List

This section displays the list of all currencies, registered in system:

Screenshot: Currencies section main window



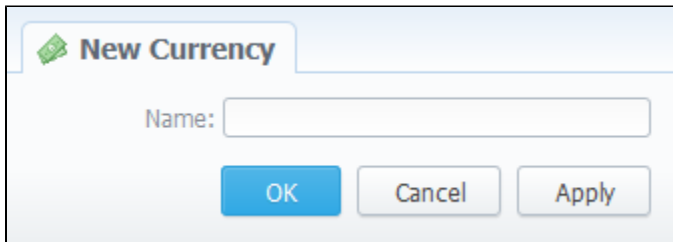
	DKK	USD		
1 DKK =	—	0.2667		
1 USD =	3.7500	—		

The list is displayed as currency exchange table, where each currency has direct exchange rate with any other currency.

## Adding New Currency

You can add new currency by pressing “New Currency” button. In pop-up window (Screenshot below), you should specify name for the new currency:

Screenshot: “New Currency” window



**New Currency**

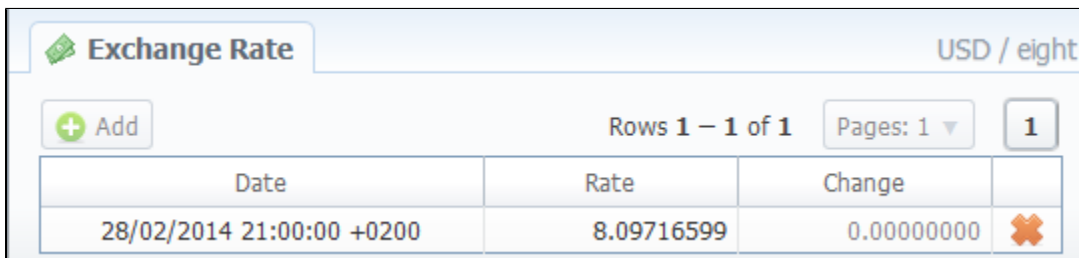
Name:

## Specifying Currencies Rate

After you add currency, you need to specify its rate. To do this, press respective exchange rate.

In pop-up window (Screenshot below) you can view a history of currency's rate changes that were made from currency's creation up to this moment.

Screenshot: Currency's rate changes history



**Exchange Rate** USD / eight

Rows 1 – 1 of 1 Pages: 1

Date	Rate	Change	
28/02/2014 21:00:00 +0200	8.09716599	0.00000000	

To add new currency's rate press "Add" button. Then you can specify currency's rate in "Rate" field. "Date" field displays the date of current currency's rate change, which will be recorded by system (Screenshot).

Screenshot: Adding new currency's rate

The screenshot shows the 'Exchange Rate' management interface. The title bar indicates the current rate is 'USD / eight'. A modal window is open for adding a new rate, showing the following details:

- 1 USD = 0.0000000 eight
- Date: 2014-04-16 20:00:00+0300
- An 'Add' button is present at the bottom of the modal.

In the background, a table displays the current rate and change:

Rate	Change	
8.09716599	0.00000000	

**Tip:** Statistics data in new currency will be available after adding currency into system, but if currency has old start date and you want old data to be billed in this currency, you need to run calls rerating.

Please note that *changing of the system currency* requires running of *Dynamic Routing Manager* to generate *routing table* with rates in new system currency.

# Payment Accounts

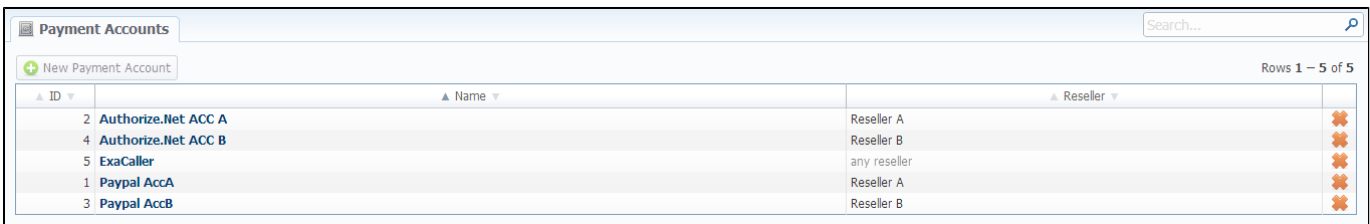
## On this page

- [Payment Accounts List](#)
- [Adding New Payment Account](#)

## Payment Accounts List

This section allows you to create different payment accounts for correct and precise transactions (payments) management (Screenshot below). These accounts are exact payment definitions which will be visible in *Transactions* section. For example, you can have *Bank Transfer* and *Credit Card* accounts, and when applying respective payments, you will be able to define that payment origin by selecting respective account.

Screenshot: *Payment Accounts* section main window

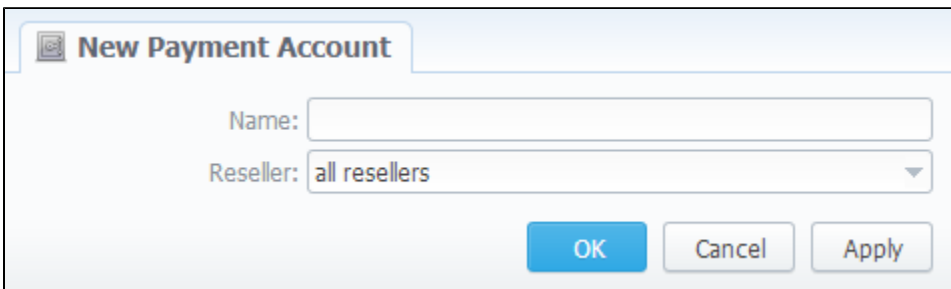


ID	Name	Reseller	
2	Authorize.Net ACC A	Reseller A	✖
4	Authorize.Net ACC B	Reseller B	✖
5	ExaCaller	any reseller	✖
1	Paypal AccA	Reseller A	✖
3	Paypal AccB	Reseller B	✖

## Adding New Payment Account

To create new payment account, simply click "New Payment Account" button, specify account name and a reseller (Screenshot below). After this, this account will be available in *Transactions* section.

Screenshot: *Adding new payment account*



**New Payment Account**

Name:

Reseller:

# Payment Terms

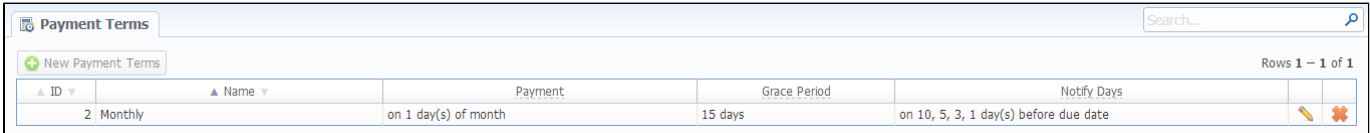
## On this page

- [Payment Terms List](#)
- [Adding New Payment Terms](#)

## Payment Terms List

This section helps to make the clients' invoicing easier and faster by allowing to use autoinvoicing profiles. Main window is displayed on Screenshot:

Screenshot: *Payment Terms section main window*



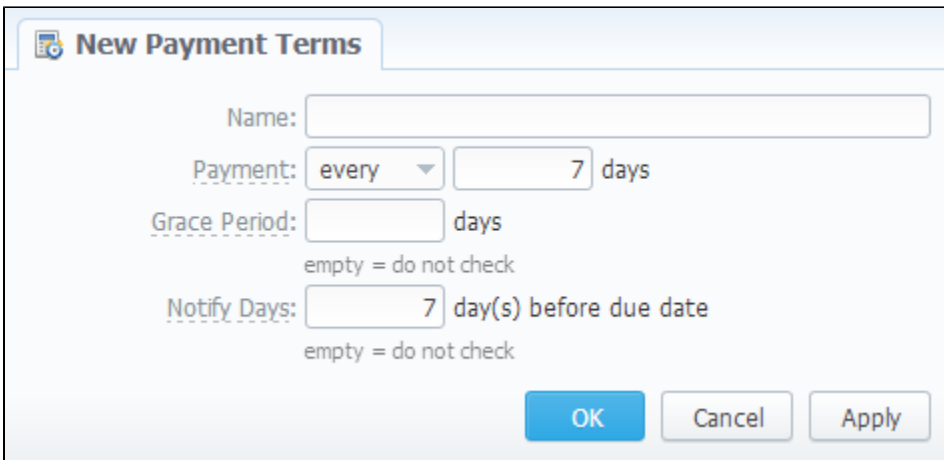
ID	Name	Payment	Grace Period	Notify Days		
2	Monthly	on 1 day(s) of month	15 days	on 10, 5, 3, 1 day(s) before due date		

This list houses the profiles that determine payment terms. These profiles are used to autoinvoice your clients.

## Adding New Payment Terms

You can add a new such profile by pressing "New Payment Terms" button. A dialog-window (Screenshot below) allows you to specify next parameters:

Screenshot: *Adding new payment profile*



**New Payment Terms**

Name:

Payment:   days

Grace Period:  days  
empty = do not check

Notify Days:  day(s) before due date  
empty = do not check

Field	Description
<b>Name</b>	Current profile name
<b>Payment</b>	You can specify the exact day or the frequency of payments here (for example, on 7-th day of the month or every 10 days)
<b>Grace Period</b>	Period that specifies how much time the client has to pay the bill after he was invoiced (so-called "Deferral period")

<b>Notify Days</b>	<p>Here you can specify by how many days before the payment date reminders will be sent to client (for example, if you will enter <i>10</i> as a value, the reminder will be sent 10 days before the payment date)</p> <p>You can specify more than one value in this field dividing them with comma symbol - “;”</p>
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# Payment Gateways

## On this page

- [Payment Gateways Section Main Window](#)
- [Configuring Payment Gateways](#)
  - [PayPal Integration Details](#)

## Payment Gateways Section Main Window

This section is dedicated to configuration of methods your customers may use to recharge their balance. Currently, there are few default methods available: *Authorize.net*, *Moneybookers*, *PayPal*, *Top-Up cards*, *QIWI* and *Ukash* (Screenshot).

*Screenshot: Payment Gateways section main window*



**AUTHORIZE.NET**ORDER POSITION: 

Login:	<input type="text"/>	Add your API login ID
Transaction Key:	<input type="text"/>	Add your API transaction key
Amount Limits:	<input type="text"/>	Possible values for top-up separated by comma (eg "5, 20, 100"). If empty — user can specify any value. Field should be empty for top-up cards.
Payment Account:	<input type="text" value="1224"/>	Specify account which will be used for transactions from this payment gateway.
Description:	<input type="text" value="Here you can add funds to your balance by using your PayPal account."/>	A user will see this text as a help-tip for respective payment method.

 **MONEYBOOKERS**ORDER POSITION: 

E-mail:	<input type="text"/>	Your Moneybookers e-mail, payment recipient
Secret word:	<input type="text"/>	Your Moneybookers secret word you set in your Moneybookers profile Merchant Tools
Gateway Currency:	<input type="text" value="U.S. Dollar (USD)"/>	Currency which will be used by user to perform a payment
System Currency:	<input type="text" value="USD"/>	This setting reflects currency of the gateway. Amount received will be treated as specified currency. Leave empty if not required for the gateway (eg. top-up cards).
Amount Limits:	<input type="text"/>	Possible values for top-up separated by comma (eg "5, 20, 100"). If empty — user can specify any value. Field should be empty for top-up cards.
Payment Account:	<input type="text" value="1224"/>	Specify account which will be used for transactions from this payment gateway.
Description:	<input type="text" value="Here you can add funds to your balance by using your PayPal account."/>	A user will see this text as a help-tip for respective payment method.

 **PAYPAL**ORDER POSITION: 

E-mail:	<input type="text"/>	You PayPal e-mail, payment recipient.
Gateway Currency:	<input type="text" value="U.S. Dollar (USD)"/>	Currency which will be used by user to perform a payment.
Fee:	<input type="text" value="0"/>	PayPal additional fee
System Currency:	<input type="text" value="USD"/>	This setting reflects currency of the gateway. Amount received will be treated as specified currency. Leave empty if not required for the gateway (eg. top-up cards).
Amount Limits:	<input type="text"/>	Possible values for top-up separated by comma (eg "5, 20, 100"). If empty — user can specify any value. Field should be empty for top-up cards.
Payment Account:	<input type="text" value="1224"/>	Specify account which will be used for transactions from this payment gateway.
Description:	<input type="text" value="Here you can add funds to your balance by using your PayPal account."/>	A user will see this text as a help-tip for respective payment method.

 **QIWI**ORDER POSITION: 

E-mail:	<input type="text"/>	Your QIWI e-mail, payment recipient.
Provider ID:	<input type="text" value="0"/>	QIWI provider ID.
Payment Account:	<input type="text" value="1224"/>	Specify account which will be used for transactions from this payment gateway.
Description:	<input type="text" value="Here you can add funds to your balance by using your PayPal account."/>	A user will see this text as a help-tip for respective payment method.

 **TOP-UP CARDS**ORDER POSITION: 

Payment Account:	<input type="text" value="1224"/>	Specify account which will be used for transactions from this payment gateway.
Description:	<input type="text" value="Here you can add funds to your balance by using your PayPal account."/>	A user will see this text as a help-tip for respective payment method.

 **UKASH**ORDER POSITION: 

Security Request Token:	<input type="text"/>	20-Character alphanumeric unique Request-Token provided by Ukash. The token is used to validate the merchant account.
-------------------------	----------------------	---

Security Response Token:	<input type="text"/>	20-Character alphanumeric unique Response-Token provided by Ukash. The token is used to validate the merchant account.
Brand Id:	<input type="text"/>	Ukash will supply a brand id to the merchant for each of the brands they wish to differentiate between. The appropriate brand id must then be sent through on each transaction request.
Gateway Currency:	U.S. Dollar (USD) ▼	Currency which will be used by user to perform a payment
System Currency:	USD ▼	This setting reflects currency of the gateway. Amount received will be treated as specified currency. Leave empty if not required for the gateway (eg. top-up cards).
Amount Limits:	<input type="text"/>	Possible values for top-up separated by comma (eg "5, 20, 100"). If empty — user can specify any value. Field should be empty for top-up cards.
Payment Account:	1224 ▼	Specify account which will be used for transactions from this payment gateway.
Description:	Here you can add funds to your balance by using your PayPal account.	A user will see this text as a help-tip for respective payment method.

[Update](#)

## Configuring Payment Gateways

To configure them, first thing you need to do is select a Reseller, by using «*Settings for*» drop-down menu in the top right corner of the window. This will mean that all customers belonging to selected Reseller will have these settings. The settings themselves depend on the payment system and can include specific options for each. The shared options are following:

Option	Description
<b>E-Mail</b>	Respective system e-mail, that should be used
<b>Gateway Currency</b>	Currency of the gateway that will be used to perform payment
<b>System Currency</b>	Select a currency from available in VCS to be used during payment. It should match <i>Gateway Currency</i>
<b>Amount Limits</b>	Specify allowed values for balance recharge, divided by comma (for example, "5, 10" means that user will be able to recharge only for 5 or 10 USD). If left empty – user can specify any value
<b>Payment Account</b>	Select which payment account should be used for payment from respective payment gateway
<b>Description</b>	User will see this text as tooltip for current payment method

Also you may specify the order of displaying *Payment methods* (if more than one method is selected) in the field called **ORDER POSITION** in the top right corner of the *Payment method* window.

## PayPal Integration Details

For proper work of **PayPal service**, you should **enable an access for a list of IP addresses in your Firewall settings**, which can be found here: [https://ppmts.custhelp.com/app/answers/detail/a\\_id/92](https://ppmts.custhelp.com/app/answers/detail/a_id/92)

Plus, you can find **detailed description on how to enable IPN** by visiting the following link: [https://ppmts.custhelp.com/app/answers/detail/a\\_id/14/related/1](https://ppmts.custhelp.com/app/answers/detail/a_id/14/related/1)

# Time Profiles

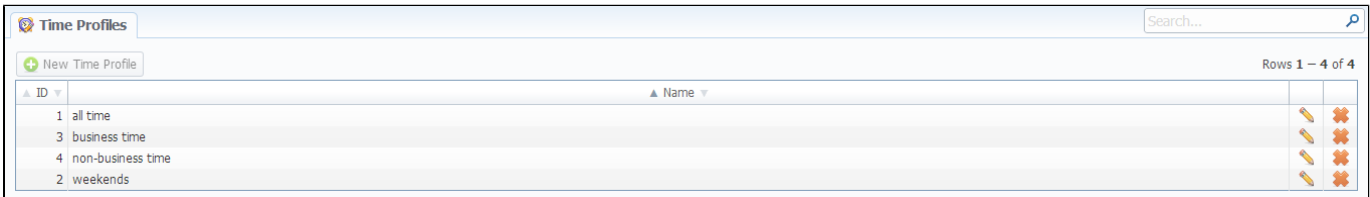
## On this page

- [Time Profiles List](#)
- [Adding New Time Profile](#)

## Time Profiles List

This section is used to create and manage time profiles. It allows you to divide rates by time of usage. For example, this can be used to sell traffic for more in business-time, and lower the price in non-business time. Main window looks like on Screenshot:

Screenshot: Time Profiles section main window

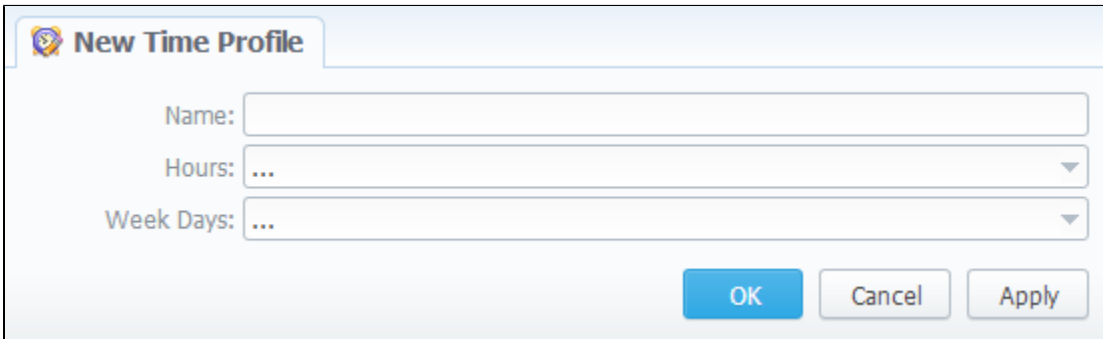


ID	Name		
1	all time		
3	business time		
4	non-business time		
2	weekends		

## Adding New Time Profile

You can add new time profile by pressing "New Time Profile" button. A dialog-window will show-up:

Screenshot: Adding new time profile



**New Time Profile**

Name:

Hours:

Week Days:

You must enter name of new profile in the "Name" field, specify time in "Hours" section, and days of the week in "Week Days", then press "OK" button. Also, you can use "check all" and "uncheck all" options for selection.

# Taxes Profiles

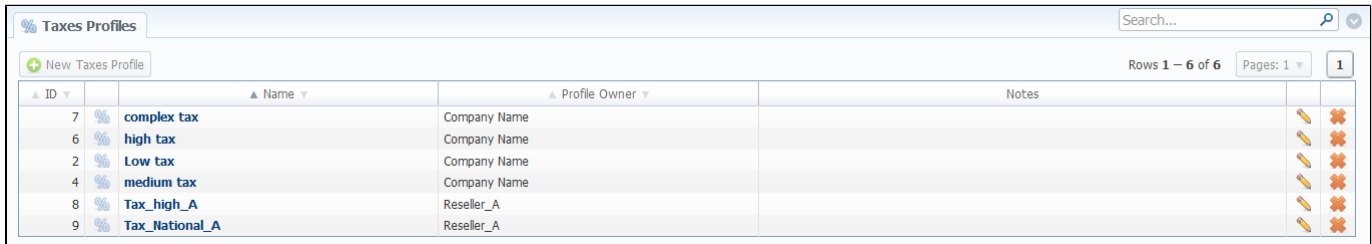
## On this page

- [Taxes Profiles List](#)
- [Creating New Taxes Profile](#)
- [Adding Taxation Rules](#)

## Taxes Profiles List

This section allows you to create so-called tax profiles, a set of taxation rules that can be applied to your rate tables in different taxation schemes.

Screenshot: Taxes Profiles section main window

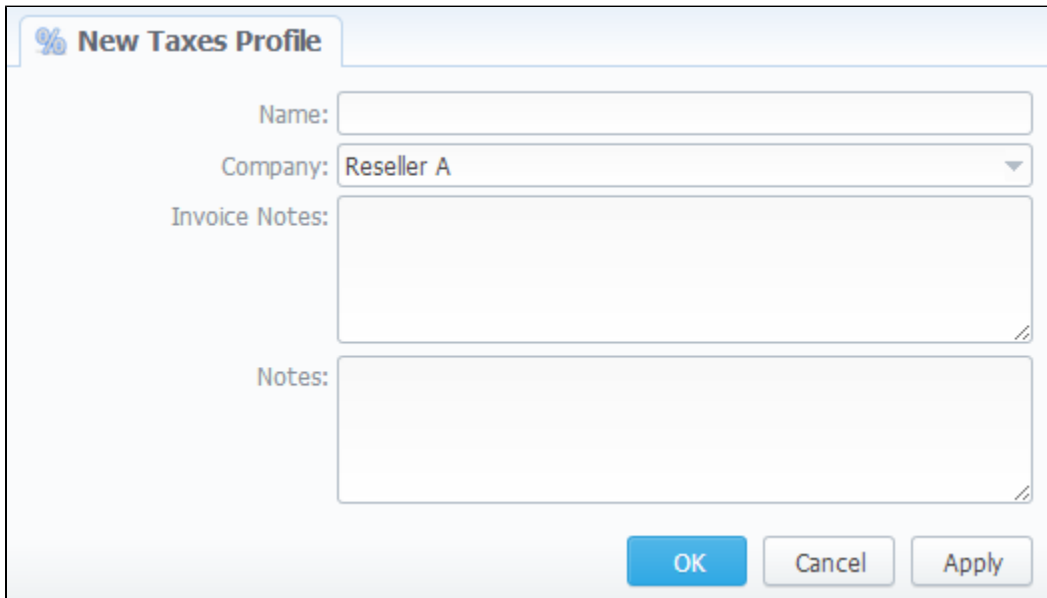


ID	Name	Profile Owner	Notes		
7	complex tax	Company Name			
6	high tax	Company Name			
2	Low tax	Company Name			
4	medium tax	Company Name			
8	Tax_high_A	Reseller_A			
9	Tax_National_A	Reseller_A			

## Creating New Taxes Profile

To create new profile click "New Taxes Profile" button and in pop-up window fill name and reseller-owner of current profile (Screenshot below). Also, you can fill in notes and invoice notes fields (invoice notes are additional text that will be a description of this tax profile in invoice).

Screenshot: "New Taxes Profile" window



**New Taxes Profile**


Name:

Company:



Invoice Notes:

Notes:




## Adding Taxation Rules

To actually add a taxation rules, you need to click  icon. In the pop-up window you can add new rule by clicking on "Add Tax Value" button or edit already existed tax rule line, where you need to specify current tax name, it's percent value, effective start date and priority (Screenshot).

Screenshot: "Edit Tax Values" window

 **Edit Tax Values** complex tax 

+ Add Tax Value Rows 1 – 3 of 3 Pages: 1 ▾ 1

Name	Value, %	Effective From	Rate Group	Priority	
basic	15	2014-10-28 00:00:00+00	Default ▾	1	
additional	5	2014-10-28 00:00:00+00	Default ▾	2	
national	3	2014-10-28 00:00:00+00	Default ▾	3	

OK Cancel Apply



**Tip:** Priority is a way to build more complex tax schemes than simple "add % of tax to operation sum". Priority works in following way: each following priority will add tax % to operation sum plus all previous priorities values. For example, if operation sum is 100USD, and there is single tax with priority 1 and value of 10%, the taxation result will be 10USD, so full operation plus tax is 110USD. If there are two taxes with priorities of 1 and 2, and respective values of 10% and 20%, then first tax yield will be 10USD, and second tax yield will be 22USD (because 20% is calculated from sum of operation plus previous tax), and total will be  $100 + 10 + 22 = 132$ USD.

# Groups

## On this page

- [Client Groups List](#)
- [Adding New Client Group](#)
- [Account Groups List](#)
- [Adding New Account Group](#)
- [DID Groups List](#)
- [Adding New DID Group](#)
- [Rate Groups List](#)
- [Adding New Rate Group](#)
- [Knowledge Base Articles](#)

In this section all groups, which are represented in the system (of clients, accounts, etc.), are managed. All groups are represented in the form of tabs, for selecting a needed group simply click on the tab with its name.

## Client Groups List

This section displays a list of client groups registered within the system (Screenshot).

Screenshot: Client Groups section main window

Name	Reseller	Notes
Customers	all resellers	
Vendors	all resellers	

## Adding New Client Group

To create a new client group press the "New Group" button (Screenshot below). Then enter a name for this group and fill other fields, if you need them.

Screenshot: Client Group "New Group" window

Type: **General**

Name:

Reseller: **all resellers**

Invoice Notes:

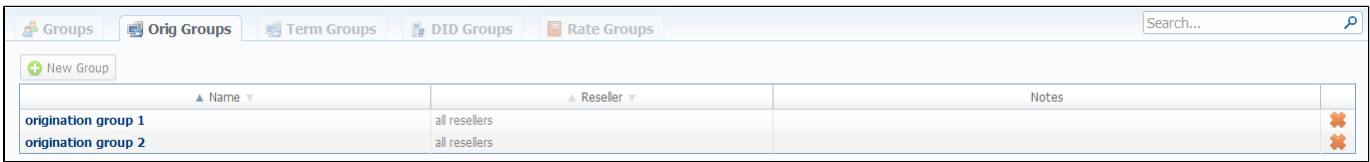
OK Cancel Apply

Field	Description
<b>Name</b>	A group name
<b>Reseller</b>	Specify a reseller for this group
<b>Invoice Notes</b>	Additional text which will be added to all invoices, issued to clients of current group

## Account Groups List

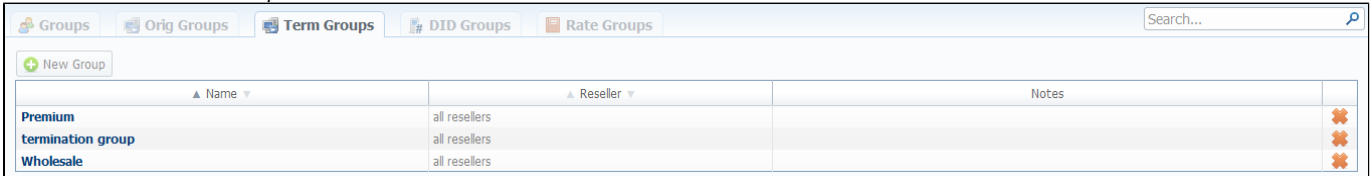
This section displays a list of created originator/terminator groups for further using them in Accounting and Dynamic Routing:

Screenshot: Originator Groups section main window



Name	Reseller	Notes
origination group 1	all resellers	
origination group 2	all resellers	

Screenshot: Terminator Groups section main window

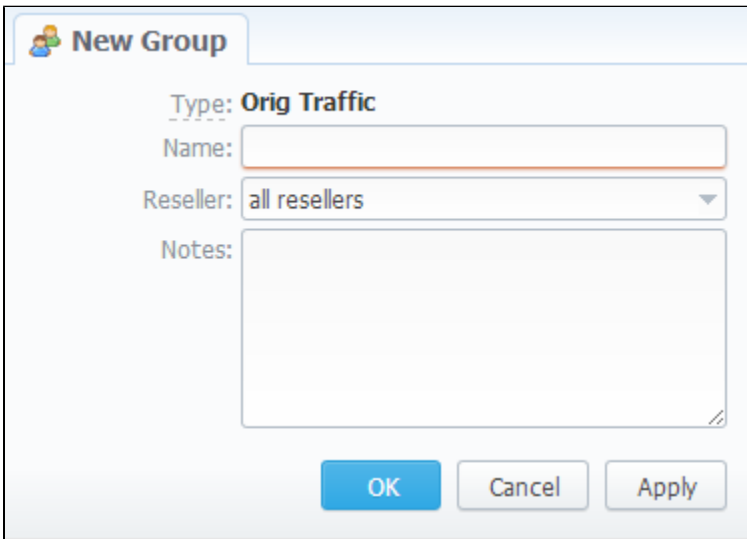


Name	Reseller	Notes
Premium termination group	all resellers	
Wholesale	all resellers	

## Adding New Account Group

You can add new originator/terminator group by pressing the "New Group" button (Screenshots below). Then fill all needed fields in the pop-up window.

Screenshot: Originator Group "New Group" window



**New Group**

Type: **Orig Traffic**

Name:

Reseller: **all resellers**

Notes:

**OK** **Cancel** **Apply**

Screenshot: Terminator Group "New Group" window

Field	Description
<b>Name</b>	A group name
<b>Reseller</b>	Specify a reseller for this group
<b>Notes</b>	Additional information about a group

## DID Groups List

This section displays a list of created DID groups for using them in Retail Module (Screenshot):

*Screenshot: DID Groups section main window*

Name	Reseller	Notes
DID-1	all resellers	X
DID-2	all resellers	X
General DIDs	all resellers	X
Gold numbers	all resellers	X

## Adding New DID Group

For adding a new DID group you should press the “New Group” button. Then fill all required fields in the “New Group” window (Screenshot below).

*Screenshot: DID Group "New Group" window*



**New Group**

Type: **DID Group**

Name:

Reseller: all resellers

Hold Days: 1

Notes:

OK Cancel Apply

Field	Description
<b>Name</b>	A group name
<b>Reseller</b>	Specify a reseller for a group
<b>Hold Days</b>	Specify the number of days till the deactivation of DID assigned package
<b>Notes</b>	Additional information about a group

## Rate Groups List

This section displays a list of created Rate groups for using them in Rate Tables (Screenshot):


Screenshot: Rate Groups section main window

Name	Reseller	Notes
InterLATA-InterState	all resellers	Between different LATAs, between different states
InterLATA-IntraState	all resellers	Between different LATAs, within same state
IntraLATA-InterState	all resellers	Within same LATA, between different states
IntraLATA-IntraState	all resellers	Within same LATA, within same state

## Adding New Rate Group

You can add new Rate group by pressing the “New Group” button (Screenshot below). Then fill all needed fields in the pop-up window.

Screenshot: Rate Group “New Group” window

 **New Group**

Type: **Rate Group**

Name:

Reseller: **all resellers** ▼

Notes:

Field	Description
<b>Name</b>	A group name
<b>Reseller</b>	Specify a reseller for this group
<b>Notes</b>	Additional information about a group

## Knowledge Base Articles

- [How to route by SRC Number / Orig Group?](#)
- [How to set calls to come from one specific originator?](#)
- [How to exclude specific vendor from Dynamic Routing?](#)

# Invoices Templates

## On this page

- [Invoices Templates List](#)
- [Creating New Invoice Template](#)

## Invoices Templates List

This tool allows you to create your own invoice templates, for use in different circumstances, for example, if you own few companies, and each company requires its own customized invoice.

To use this feature you need to access *Configuration – Invoices Templates* section and proceed with browsing default templates or creating a new one (Screenshot).

Screenshot: *Invoices Templates* section main window

ID	Name	Type	Reseller	Notes
1	default	PDF	any reseller	default invoice template
5	default extended	PDF	any reseller	
2	estonian	PDF	any reseller	estonian default template

## Creating New Invoice Template

When creating new template, first thing you must choose is the type of a template. Currently there are two types – *xls* and *pdf*. For creating new template press respective button: "New PDF Template" or "New XLS Template". If *xls* type is selected, you can only select which fields you would like to see in invoice, as the positioning of all items are predefined (Screenshot).

Screenshot: *Creating an invoice XLS template*

**New Template**

Name:

Reseller:

Anonymized Codes:

Attach CDRs list to the invoice

**EXCEL TEMPLATE PARAMETERS**

Statistics Columns:

Template:

Include packages charges to invoice

Buttons: OK, Cancel, Apply

In the following table you will find descriptions of all fields of this form:

Section	Fields Description	
General Information	General information about the invoice template	
	<ul style="list-style-type: none"> <li>• <b>Name</b></li> </ul>	Unique invoice template name to differentiate invoice templates
	<ul style="list-style-type: none"> <li>• <b>Reseller</b></li> </ul>	Reseller who owns this invoice template

	<ul style="list-style-type: none"> <li><b>Anonymized Codes</b></li> </ul>	Codes which will have hidden numbers in invoice
	<ul style="list-style-type: none"> <li><b>"Attach CDRs list to the invoice" checkbox</b></li> </ul>	If enabled, creates CDR file for invoicing period and attaches it to invoice
	<ul style="list-style-type: none"> <li><b>CDRs List Format</b></li> </ul>	List of CDR file format (csv or xls)
	<ul style="list-style-type: none"> <li><b>Select Columns</b></li> </ul>	List of columns which can be presented in attached CDR file
	<ul style="list-style-type: none"> <li><b>Notes</b></li> </ul>	Additional information concerning the invoice template
<b>Excel Template Parameters</b>	Settings of invoice template	
	<ul style="list-style-type: none"> <li><b>Statistics Columns</b></li> </ul>	List of statistics columns. If selected, the invoice will include summary statistics with selected columns
	<ul style="list-style-type: none"> <li><b>"Include packages changes to invoice" checkbox</b></li> </ul>	If enabled, invoice will include data on ordered packages for selected period
	<ul style="list-style-type: none"> <li><b>Template</b></li> </ul>	Defined displaying format of CDRs list in a template

If pdf template is selected, you will see the interface similar to one of the popular text processors (Screenshot).

Screenshot: Creating an invoice PDF template

The screenshot shows the 'Edit Template' window for creating an invoice PDF. At the top, there are fields for 'Name' (default), 'Reseller' (all resellers), and 'Anonymized Codes'. A checkbox for 'Attach CDRs list to the invoice' is present. A 'Notes' field contains 'default invoice template'. Below this is a rich text editor toolbar with options for bold, italic, underline, text color, background color, font family, and font size. The main workspace displays a preview of an invoice template with the following structure:

INVOICE No. {number} (sender\_logo)

Date of invoice: {date}  
To be paid within {due\_days} days of invoice date.  
To be paid before {due\_date}.

FROM: {sender\_name} (sender\_address)  
Tax ID: {sender\_tax\_id} Reg ID: {sender\_reg\_id}

TO: {receiver\_name} (receiver\_address)  
Tax ID: {receiver\_tax\_id} Reg ID: {receiver\_reg\_id}

INVOICE FOR: VoIP services from {period\_start} to {period\_finish}, timezone {tz}.

Package Info		Cost	
{name}	{details}	{rate}	{currency}
		TOTAL:	{total_cost_packages} {currency}

Country	Destination	Rate	Calls	Cost
{code_country}	{code_name}	{rate}	{count}	{cost}
SubTotal:			{calls_subtotal}	{cost_subtotal}
TOTAL:			{total_cost_calls}	{currency}

{group\_notes}

Payment should be directed to:  
{receiver\_bank\_info}

SubTotal: {total\_cost\_net} {currency}  
Tax: {tax} %; {total\_cost\_tax} {currency}

**Total: {total\_cost\_gross} {currency}**

Path: Words: 93

On the right, the 'Invoice Settings' sidebar includes fields for {number}, {due\_days}, {due\_date}, {period\_start}, {period\_finish}, {date}, {tz}, and {group\_notes}. Below these are buttons for 'Personal Data', 'Stats Table', 'Packages Table', 'CDRs Table', 'Custom Items table', 'Financial Summary', and 'Global Totals'. At the bottom right are 'OK', 'Cancel', and 'Apply' buttons.

The whole process is following:

- Add a table to your workspace, right-click on it and define table class (stats, cdrs, packages, positions);
- Fill table with relevant information which should be present in invoice, by using functional variables, which you can pick from a list provided in same window at the right drop-down panels;

- After invoice template is created, fill in its name and click OK;
- Go to *Management – Resellers*, and in reseller's properties select your invoice template. This will insure that all customers of this reseller will be using this template;
- When creating invoice in *Management – Invoices* you can switch invoice template prior generating an invoice.

# VoIP Gateways

## On this page

- [VoIP Gateways List](#)
- [Adding New VoIP Gateway](#)
- [Files Downloading History](#)
- [Knowledge Base Articles](#)

## VoIP Gateways List

This section allows you to configure and integrate all switches into billing via RADIUS or CDR-files upload. Main window of this section is displayed on Screenshot:

Screenshot: VoIP Gateways section main window

ID	Name	RADIUS Server	Files Collector	Files Downloader	SIP Server
15	FS-Amsterdam 82.196.3.58	JeraSoft VCS Common	—	—	✘
14	FS-KSA-MOBILY 93.189.98.52	JeraSoft VCS Common	—	—	✘
16	LOCALHOST 127.0.0.1	Aloe MVTS Pro	—	—	✘
13	OS-KSA-MOBILY 93.189.98.51	JeraSoft VCS Common	—	—	✘

## Adding New VoIP Gateway

To add a new switch press “New VoIP Gateway” button and specify next parameters in a window that opens (Screenshot). Take a note, that some fields open by clicking on icon near respective section.

Screenshot: Adding new VoIP Gateway

**GENERAL INFORMATION**

Name:

IP Address:

LNP Provider:

Allowed For:  Company Name × Reseller × Reseller\_A × Reseller\_B ×

**FILES DOWNLOADER**

Type:  SSH Port:  22

Login:  root Password:

From path:  /usr/local/mvts/billing/bill\*

**FILES COLLECTOR**

Collector Type:  Aastra MX-ONE

**RADIUS SERVER**

Collector Type:  Aloe IP Centrex

Secret:

**SIP SERVER**

Collector Type:  Brekeke

**TRAFFIC PROCESSING**

Code deck:

Origin	Code	Code Name	Src Match	Src Replace	Dst Match	Dst Replace	Add Orig Group	Order	
O / T								1	✘

Section	Fields And Descriptions
General	General gateway and calls processing information

<b>Information</b>	• <b>Name</b>	VoIP gateway name
	• <b>IP Address</b>	VoIP gateway IP-address
	• <b>LNP Provider</b>	Specify here a LNP provider
	• <b>Allowed For</b>	Specify here, which resellers can use current VoIP gateway
	• <b>Ident Priority</b>	Set the priority of account identification
	• <b>ORIG ANI Ident</b>	Sets originating calls ANI identification (options available: SRC number ext, SRC number bill, DST ext, DST number bill)
	• <b>TERM ANI Ident</b>	Sets terminating calls ANI identification (options available: SRC numberext, SRC number bill, DST ext, DST number bill)
	• <b>"Rate ORIG calls by DstIn number" Checkbox</b>	Activates / deactivates originating calls processing by full phone number in statistics
	• <b>"Rate TERM calls by DstOut number" Checkbox</b>	Activates / deactivates terminating calls processing by full phone number in statistics
	• <b>"Rate calls only with "success" status" Checkbox</b>	Activates/deactivates processing of calls that have "success" end code only
<b>Files Downloader</b>	Downloader settings	
	• <b>Type</b>	Specify port type (SSH or FTP)
	• <b>Port</b>	Specify port for SSH or FTP
	• <b>Login</b>	Gateway server login (default value is "root")
	• <b>Password</b>	Password is required for FTP integration. For SSH you have to crate SSH-keys
	• <b>From path</b>	Specify CDR-files path (mask paths are allowed)
<b>Files Collector</b>	<i>File Collectors</i> gather call data from CDR-files (activate this option if you plan to use integration via CDR-files)	
	• <b>Collector Type</b>	Which collector type should be used
	• <b>Overwrite TZ</b>	Timezone selection (if you select a different timezone, system will ignore a timezone information stored in CDRs-file and use current value)
	• <b>"Skip Zero Calls" Checkbox</b>	Activates / deactivates zero duration calls ignoring
		Activates/deactivates released calls ignoring

	<ul style="list-style-type: none"> <li>• <b>"Skip Released Calls" Checkbox</b></li> </ul>	
<b>RADIUS Server</b>	RADIUS Collectors gather call data from RADIUS-server via RADIUS-protocol (activate this option if you plan to use integration via RADIUS-protocol)	
	<ul style="list-style-type: none"> <li>• <b>Collector Type</b></li> </ul>	Which collector type should be used
	<ul style="list-style-type: none"> <li>• <b>Secret</b></li> </ul>	RADIUS-server password
	<ul style="list-style-type: none"> <li>• <b>Overwrite TZ</b></li> </ul>	Timezone selection (if you select a different timezone, system will ignore a timezone information stored in CDR file and use current value)
	<ul style="list-style-type: none"> <li>• <b>"Track Active Calls" Checkbox</b></li> </ul>	Enables the display of active calls in <i>Active Calls</i> section
	<ul style="list-style-type: none"> <li>• <b>"Skip Zero Calls" Checkbox</b></li> </ul>	Activates / deactivates zero duration calls ignoring
	<ul style="list-style-type: none"> <li>• <b>"Skip Released Calls" Checkbox</b></li> </ul>	Activates/deactivates released calls ignoring
	<ul style="list-style-type: none"> <li>• <b>"Collect Accounting Data" Checkbox</b></li> </ul>	If disabled, information from STOP packets will not be collected by database and <i>Radius Accounting</i> will be used only for <i>Active Calls monitoring</i> If enabled, information from STOP packets will be collected by database
<b>SIP Server</b>	Allows acceptance of SIP packets from current gateway. Required for SIP Redirect routing feature	
<b>Traffic Processing</b>	Here you can set number translation rules that will be executing for all calls processed by current gateway	

## Files Downloading History

You can view files downloading history by going to the *"Downloads History"* section tab.

## Knowledge Base Articles

- [How to set up a functional capacity?](#)
- [How to add a new gateway to VCS?](#)



# Settings

This section is used to manage system notify messages distribution, and specifying system time and date format. Main window is presented on screenshot:

*Screenshot: Settings section main window*

## SYSTEM SETTINGS

Default Currency:	<input type="text" value="USD"/>	Select which currency is the default one, it will be used for generation of routing tables and matching of profitability margin.
Domain name:	<input type="text" value="http://"/>	Domain name field ( <b>It should always start with "https://" and should not be empty!</b> )
Default language:	<input type="text" value="English"/>	Choose which language will be selected by default on login screen
Timezone:	<input type="text" value="UTC"/>	Default system timezone, you can change timezone in statistic reports queries
Statistics processing order:	<input type="text" value="new calls first"/>	Order of statistics processing when the queue is large
Re-rating mode:	<input type="text" value="historic"/>	Select calculator re-rating mode: <b>actual</b> – calls are processed based on the client's current state <b>historic</b> – calls are processed based on the clients's state at the time of the call
Calculator workers:	<input type="text" value="1"/>	Number of threads processing calculator tasks (number of CPU cores / 2).
Calculator mode:	<input type="text" value="periodically run"/>	Select calculator processing mode: <b>periodic</b> – runs every X minutes by Tasks Scheduler, faster processing bulk of CDRs, but causes some delay <b>realtime</b> – processes calls in realtime, slower processing in case of CDRs bulks, only if you really need realtime
<input checked="" type="checkbox"/> Enable clients panel		Enables client's access to control panel with rates and statistics at /clients/
Default PIN Length:	<input type="text" value="12"/>	For <b>Calling Cards</b> only — default length of PIN code for generated cards

## MAIL SERVER SETTINGS

Host:	<input type="text" value="localhost"/>	Hostname or IP address of SMTP server
Port:	<input type="text" value="25"/> <input type="text" value="Plain"/>	Port/Security of SMTP server
From:	<input type="text" value="billbery@localhost"/>	Specify e-mail address to send mail from, it is system address for the SMTP server, not the one that appears in From field in e-mails
Login:	<input type="text"/>	login of SMTP server (if login and password fields are empty, no authentication)
Password:	<input type="text"/>	Password of SMTP server

## OUTPUT AND IMPORT/EXPORT

Date Format:	<input type="text" value="%d/%m/%Y"/>	Output format for dates, you can check syntax for this field in the User Manual
Datetime Format:	<input type="text" value="%d/%m/%Y %H:%M:%S %z"/>	Output format for datetimes, you can check syntax for this field in the User Manual
Items Per Page:	<input type="text" value="20"/>	Default number of items per page in system interfaces.
CSV Delimiter:	<input type="text" value=";"/>	Default delimiter used for CSV files when importing/exporting
CSV Decimal Point:	<input type="text" value=","/>	What will be used as decimal separation point for numbers ("," - for most cases)
Close rates marked by:	<input type="text" value="delete, block, close"/>	When importing rate table, if some rates have notes that they are closed, system will close the appropriate destinations after importing them. This field defines what marking words should be taken as ones closing a rate. System also search for longer words, for example: close - closed, delete - deleted, etc.
Hidden Numbers:	<input type="text" value="4"/>	Number of digits which should be hidden in destinations number
Output Encoding:	<input type="text" value="Windows-1251"/>	Encoding, that will be used during exporting data to file.

## INVOICING SETTINGS

Invoice No Template:	<input type="text" value="%d%m%Y-%x"/>	Format for Invoices No, you can use next replacements: %Y - current year, %m - current month, %d - current day, %C - client ID, %N - client name, %x - system incremental integer, %X - reseller incremental integer
Invoice Last No:	<input type="text" value="Stag-747-522"/>	Last Invoice No used in system for generation of invoices
Autoinvoicing Default State:	<input type="text" value="to send"/>	Default state for all automatically created invoices.
Default invoice fields:	<input type="text" value="Country × Code Name × Rate × Minutes × Cost ×"/>	List of fields that will be selected by default during invoices generation. Same fields will be used during auto-invoicing generation.
Autoinvoicing Delay:	<input type="text" value="0"/> hour(s)	Time in hours from end of previous day to wait before invoicing. Required to be positive integer, otherwise system will invoice customer before the moment of full statistics process. Recommended value is around 5-6 hours.
<input type="checkbox"/> Check for empty code names in invoices		In case invoice template shows code names, but the field "Code Name" is not presented in Rate table of a client, invoice will not be generated.
CDR fields for invoices:	<input type="text" value="Call Date × Code Name × Code × Dst Number × Billed Time × Rate × Cost ×"/>	List of fields that will be selected by default when adding CDR-list to invoice. Same fields will be used during auto-invoicing generation.

## RADIUS SERVER

Bind to address:	<input type="text" value="127.0.0.1"/> empty - bind to all	Specify your server IP addresses (separated by comma) to bind to, empty field means bind to all addresses.
Accounting port:	<input type="text" value="1813"/>	Listen for accounting packets on specified port

Authorization port:	<input type="text" value="1812"/>	Listen for authorization packets on specified port, same for dynamic routing if available
Number of workers:	<input type="text" value="2"/>	Number of thread that process packets, usually should equal to number of CPU cores - 1
Max call length:	<input type="text" value="7200"/>	Maximum call duration in seconds, for customers in <b>postpaid</b> mode.
Changes will be only applied after you restart RADIUS server from Task Scheduler section)		

#### SIP SERVER

SIP port:	<input type="text" value="5060"/>	Listen for auth packets on specified port.
-----------	-----------------------------------	--

#### DYNAMIC ROUTING

Analyze Period:	<input type="text" value="300"/> minute(s)	What amount of last minutes of statistics will be analyzed to build a routing table.
<input type="checkbox"/> Log empty routes		Enable to get messages to Events Log about zero-routes (degrades performance)

#### NOTIFICATION AND MONITORING

<input checked="" type="checkbox"/> Event on not found account		Send event to events log, when client/account was not identified during processing of CDRs or RADIUS Authorization
<input checked="" type="checkbox"/> Event on not found tariff		Send event to events log, when destination/rate was not identified during processing of CDRs or RADIUS Authorization
<input type="checkbox"/> Event on zero time calls		Send events even if call has zero length
Resend low-balance events every:	<input type="text" value="0"/> hour(s)	How often to resend e-mail regarding low customer's balance
Rate changes notification period:	<input type="text" value="0"/> hour(s)	Customer will be informed regarding rates changes in given amount of hours after the actual change.
Period to notify future changes:	<input type="text" value="15"/> day(s)	Customer will be informed about rates for next X days.
Watch for free space at:	<input type="text" value="/usr/local:20;/var/lib/postgresql:30"/>	Monitor free disk space, you can specify full path where to monitor and percent of space delimited by ":". When free space will be less than specified percent of whole disk size - system will send alert.
Message Limit for Events Config:	<input type="text" value="50"/>	Sends all messages from one worker in single e-mail, if message count is larger than specified amount

#### AUTO-ROTATION AND CLEANING

Delete events from log after:	<input type="text" value="1"/> day(s) (from 1 to 90)	Delete events from Events Log after specified period of days.
Statistics rotate delay:	<input type="text" value="3001"/> day(s) (0 - do not rotate)	Rotate statistics to archive after specified number of days.
Delete not actual rates after:	<input type="text" value="360"/> day(s) (0 - do not delete)	Delete rates from system, when they are not actual and effective date is older than specified number of days.
Delete parsed CDR-files after:	<input type="text" value="180"/> day(s) (0 - do not delete)	After what number of days already parsed and processed CDR-files should be deleted from local server.
Delete archived log-files after:	<input type="text" value="190"/> day(s) (0 - do not delete)	After what number of days archived log-files should be deleted from local server.
Delete DID's history from log after:	<input type="text" value="189"/> day(s) (from 1 to 90)	Delete DID's history from DID's history after specified period of days.

#### BACKUP SETTINGS

System backup period:	<input type="text" value="0"/> hour(s) (0 - do not backup)	How often to backup system, please note that actual backup will be done at the time when Backup Manager process runs.
Destination for backup packages:	<input type="text"/>	Absolute path where to put backup packages, it can not be inside root of VCS system.
Leave last X packages:	<input type="text" value="10"/>	How many last backup packages to leave.

Update

# System Settings

Timezone and system's mail server parameters are specified here (Screenshot):

Screenshot: System Settings window

SYSTEM SETTINGS	
Default Currency:	<input type="text" value="USD"/> Select which currency is the default one, it will be used for generation of routing tables and matching of profitability margin.
Domain name:	<input type="text" value="http://"/> Domain name field ( <b>It should always start with "https://" and should not be empty!</b> )
Default language:	<input type="text" value="English"/> Choose which language will be selected by default on login screen
Timezone:	<input type="text" value="UTC"/> Default system timezone, you can change timezone in statistic reports queries
Statistics processing order:	<input type="text" value="new calls first"/> Order of statistics processing when the queue is large
Re-rating mode:	<input type="text" value="actual"/> Select calculator re-rating mode: <b>actual</b> – calls are processed based on the client's current state <b>historic</b> – calls are processed based on the clients's state at the time of the call
Calculator workers:	<input type="text" value="1"/> Number of threads processing calculator tasks (number of CPU cores / 2).
Calculator mode:	<input type="text" value="periodically run"/> Select calculator processing mode: <b>periodic</b> – runs every X minutes by Tasks Scheduler, faster processing bulk of CDRs, but causes some delay <b>realtime</b> – processes calls in realtime, slower processing in case of CDRs bulks, only if you really need realtime
<input checked="" type="checkbox"/> Enable clients panel	 Enables client's access to control panel with rates and statistics at /clients/
Default PIN Length:	<input type="text" value="12"/> For <b>Calling Cards</b> only — default length of PIN code for generated cards

Field	Description
<b>Default Currency</b>	Specify currency that will be used as default for generation of routing
<b>Domain Name</b>	Enter relevant domain address of your VCS server. In most cases, VCS IP address should be entered here. Please note, if this name is specified incorrectly, you may experience issues with reseller logos display
<b>Default Language</b>	Select default language
<b>Timezone</b>	Select default timezone
<b>Statistics processing order</b>	Specify what statistics to process first (newer or older)
<b>Re-rating mode</b>	Select the calculator re-rating mode: <ul style="list-style-type: none"> <li><b>actual</b> – calls are processed based on the <i>Client's current state</i> (note, this mode is set by default)</li> <li><b>historic</b> – calls are processed based on the <i>Client's state at the time of the call</i></li> </ul>
<b>Calculator workers</b>	Specify number of threads processing calculator tasks (number of CPU cores / 2)
<b>Calculator mode</b>	Defines the calculator workout, whether is will start periodically through Task Scheduler, or will be constantly running
<b>"Enable client's panel" Checkbox</b>	Switch customer's interface on/off with one click
<b>Default PIN length</b>	Sets the default length of PIN-code when creating calling card series

# Mail Server Settings

Here you can specify mail server settings (Screenshot):

Screenshot: Mail Server Settings window

MAIL SERVER SETTINGS		
Host:	<input type="text" value="localhost"/>	Hostname or IP address of SMTP server
Port:	<input type="text" value="25"/> <input type="text" value="Plain"/>	Port/Security of SMTP server
From:	<input type="text" value="billbery@localhost.ru"/>	Specify e-mail address to send mail from, it is system address for the SMTP server, not the one that appears in From field in e-mails
Login:	<input type="text"/>	login of SMTP server (if login and password fields are empty, no authentication)
Password:	<input type="password"/>	Password of SMTP server

Field	Description
<b>Host</b>	Mail server address that is used by system
<b>Port</b>	Specify port and security type of SMTP server (Plain, TLS, SSL)
<b>From</b>	The e-mail address that will be specified as sender
<b>Login</b>	Login for SMTP server
<b>Password</b>	Password for SMTP server

# Output and Import / Export

Here you can specify output and import / export parameters, including time and date parameters configuration (Screenshot):

Screenshot: Output and Import / Export settings window

OUTPUT AND IMPORT/EXPORT		
Date Format:	<input type="text" value="%d/%m/%Y"/>	Output format for dates, you can check syntax for this field in the User Manual
Datetime Format:	<input type="text" value="%d/%m/%Y %H:%M:%S %z"/>	Output format for datetimes, you can check syntax for this field in the User Manual
Items Per Page:	<input type="text" value="20"/>	Default number of items per page in system interfaces.
CSV Delimiter:	<input type="text" value=","/>	Default delimiter used for CSV files when importing/exporting
CSV Decimal Point:	<input type="text" value=","/>	What will be used as decimal separation point for numbers ("," - for most cases)
Close rates marked by:	<input type="text" value="delete, block, close"/>	When importing rate table, if some rates have notes that they are closed, system will close the appropriate destinations after importing them. This field defines what marking words should be taken as ones closing a rate. System also search for longer words, for example: close - closed, delete - deleted, etc.
Hidden Numbers:	<input type="text" value="4"/>	Number of digits which should be hidden in destinations number
Output Encoding:	<input type="text" value="Windows-1251"/>	Encoding, that will be used during exporting data to file.

Field	Description
<b>Date Format</b>	Specify date parameters here
	<ul style="list-style-type: none"> <li>• <b>%d</b> Day of the month in numeric form. Allowed values: from 01 to 31</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>%m</b> Month number. Allowed values: from 01 to 12</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>%Y</b> Number of the year, that consists of 4 numbers. Value example: 1999, 2005, 2010</li> </ul>
<b>Datetime Format</b>	Specify datetime parameters here
	<ul style="list-style-type: none"> <li>• <b>%d</b> Day of the month in numeric form. Allowed values: from 01 to 31</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>%m</b> Month number. Allowed values: from 01 to 12</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>%Y</b> Number of the year, that consists of 4 numbers. Value example: 1999, 2005, 2010</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>%H</b> Hours in 24-hour format with leading zeroes. Allowed values: from 00 to 23</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>%M</b> Minutes with leading zeroes. Allowed values: from 00 to 59</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>%S</b> Seconds with leading zeroes. Allowed values: from 00 to 59</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>%z</b> Timezone settings</li> </ul>
<b>Items Per Page</b>	Set default quantity of items displayed on a single page
<b>CSV Delimiter</b>	Set default delimiter for CSV files

<b>CSV Decimal Point</b>	Set default decimal point for CSV files
<b>Close rates marked by</b>	When importing rate sheets system will be able to close respective rates, if <i>Rate Changes</i> column has one of the key-words entered here
<b>Hidden numbers</b>	Specify how many digits of a number should be hidden, when this function is activated for a customer
<b>Output Encoding</b>	Select which encoding to use when exporting a file

# Invoicing Settings

Invoicing settings are grouped here (Screenshot):

Screenshot: Invoicing Settings window

INVOICING SETTINGS		
Invoice No Template:	<input type="text" value="%d%m%Y-%x"/>	Format for Invoices No, you can use next replacements: %Y - current year, %m - current month, %d - current day, %C - client ID, %N - client name, %x - system incremental integer, %X - reseller incremental integer
Invoice Last No:	<input type="text" value="Stag-747-522"/>	Last Invoice No used in system for generation of invoices
Autoinvoicing Default State:	<input type="text" value="to send"/>	Default state for all automatically created invoices.
Default invoice fields:	<input type="text" value="Country"/> × <input type="text" value="Code Name"/> × <input type="text" value="Rate"/> × <input type="text" value="Minutes"/> × <input type="text" value="Cost"/> ×	List of fields that will be selected by default during invoices generation. Same fields will be used during auto-invoicing generation.
Autoinvoicing Delay:	<input type="text" value="0"/> hour(s)	Time in hours from end of previous day to wait before invoicing. Required to be positive integer, otherwise system will invoice customer before the moment of full statistics process. Recommended value is around 5-6 hours.
<input type="checkbox"/>	Check for empty code names in invoices	In case invoice template shows code names, but the field "Code Name" is not presented in Rate table of a client, invoice will not be generated.
CDR fields for invoices:	<input type="text" value="Call Date"/> × <input type="text" value="Code Name"/> × <input type="text" value="Code"/> × <input type="text" value="Dst Number"/> × <input type="text" value="Billed Time"/> × <input type="text" value="Rate"/> × <input type="text" value="Cost"/> ×	List of fields that will be selected by default when adding CDR-list to invoice. Same fields will be used during auto-invoicing generation.

Field	Description
Invoice No Template	Default template for invoice number
Invoice Last No	Number of last issued invoice
Autoinvoicing Default State	You can set the state (such as <i>normal</i> , <i>to sent</i> or <i>to verify</i> ) for all automatically created invoices
Default invoice fields	You can select the displayable fields in automatically generated invoices here. This is used by autoinvoicing feature – if you don't use the autoinvoicing, you may ignore this setting
Autoinvoicing Delay	Time in hours system will wait until doing invoicing
"Check empty code names in invoices" checkbox	Enables checking of the correspondence of a <i>Code</i> with a <i>Code name</i> , and in case of finding some mismatching the system will give an alert and invoice will be not generated
CDR fields for invoices	Select default fields that should be in CDR list which is attached to invoices



# RADIUS Server

VCS RADIUS server settings can be changed here (Screenshot):

Screenshot: RADIUS Server settings window

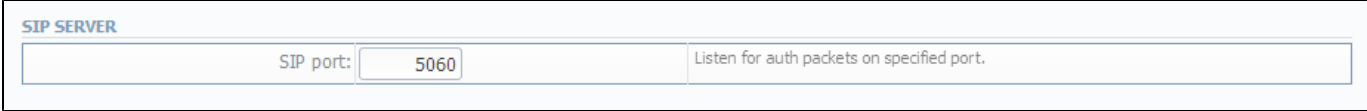
RADIUS SERVER		
Bind to address:	<input type="text"/> empty - bind to all	Specify your server IP addresses (separated by comma) to bind to, empty field means bind to all addresses.
Accounting port:	<input type="text" value="1813"/>	Listen for accounting packets on specified port
Authorization port:	<input type="text" value="1812"/>	Listen for authorization packets on specified port, same for dynamic routing if available
Number of workers:	<input type="text" value="2"/>	Number of thread that process packets, usually should equal to number of CPU cores - 1
Max call length:	<input type="text" value="3600"/>	Maximum call duration in seconds, for customers in <b>postpaid</b> mode.
Changes will be only applied after you restart RADIUS server from Task Scheduler section)		

Field	Description
<b>Bind to address</b>	Specify your VCS server IP addresses, separated by comma to bind RADIUS to
<b>Accounting port</b>	Specify accounting port here (default is 1813)
<b>Authorization port</b>	Specify authorization port here (default is 1812)
<b>Number of workers</b>	Number of RADIUS workers, usually is equal to number of CPU cores minus one
<b>Max call length</b>	Limit maximum call length in seconds

# SIP Server

SIP Server settings can be changed here (Screenshot):

Screenshot: SIP Server settings window



The screenshot shows a settings window titled "SIP SERVER". It contains a single input field with the label "SIP port:" and the value "5060". To the right of the input field is a descriptive text: "Listen for auth packets on specified port."

Fields	Description
<b>SIP Port</b>	Specify a SIP port that system should listen to

# Dynamic Routing

Dynamic routing settings can be altered here (Screenshot):

Screenshot: Dynamic Routing settings window

**DYNAMIC ROUTING**

Analyze Period: <input type="text" value="300"/> minute(s)	What amount of last minutes of statistics will be analyzed to build a routing table.
<input type="checkbox"/> Log empty routes	Enable to get messages to Events Log about zero-routes (degrades performance)

Field	Description
Analyze Period	An amount of minutes of last available statistics that will be used to build routing table
"Log empty routes" Checkbox	Enable to get log messages regarding zero routes

# Notification and Monitoring

Notify messages distribution and other monitoring settings are configured here (Screenshot):

Screenshot: Notification and Monitoring settings window

NOTIFICATION AND MONITORING		
<input checked="" type="checkbox"/>	Event on not found account	Send event to events log, when client/account was not identified during processing of CDRs or RADIUS Authorization
<input checked="" type="checkbox"/>	Event on not found tariff	Send event to events log, when destination/rate was not identified during processing of CDRs or RADIUS Authorization
<input type="checkbox"/>	Event on zero time calls	Send events even if call has zero length
Resend low-balance events every:	<input type="text" value="24"/> hour(s)	How often to resend e-mail regarding low customer's balance
Rate changes notification period:	<input type="text" value="5"/> hour(s)	Customer will be informed regarding rates changes in given amount of hours after the actual change.
Period to notify future changes:	<input type="text" value="7"/> day(s)	Customer will be informed about rates for next X days.
Watch for free space at:	<input type="text" value="/usr/local:20;/var/lib/pgsql:30"/>	Monitor free disk space, you can specify full path where to monitor and percent of space delimited by ":". When free space will be less than specified percent of whole disk size - system will send alert.
Message Limit for Events Config:	<input type="text" value="5"/>	Sends all messages from one worker in single e-mail, if message count is larger than specified amount

Field	Description
"Event on not found account" Checkbox	Activates/deactivates notify sending when no account was found
"Event on not found tariff" Checkbox	Activates/deactivates notify sending when no rate was found
"Event on zero time calls" Checkbox	Activates/deactivates all previous checkboxes effects when calls with zero duration were found
Resend low balance events every, hour(s)	Resend low balance notification once in a specified period
Rate changes notification period, hour(s)	Specify amount of time which needs to pass after actual rate change, so notification will be sent
Period to notify future changes, day(s)	Specify number of days, for customer to beinformed about rate change in advance
Watch for free space at	Here you can specify folders that will be monitored for available disk space. To add a folder, specify its path, and by using ":" sign choose the percent of disk space, below which the system will send warning notifies  For example - /usr/local/:20 means that if free disk space is below 20 percent in folder /usr/local/ the notify will be sent. You can add multiple folders in this field by delimiting them with ";" sign
Message Limit for Events Config	Specify how many same type messages shall be included into single email. If generated messages number is less than specified, each message will be sent in separate email

# Auto-rotation and Cleaning

Automatic statistics and backup management parameters are configured here (Screenshot):

Screenshot: Auto-rotation and Cleaning settings window

AUTO-ROTATION AND CLEANING		
Delete events from log after:	<input type="text" value="1"/> day(s) (from 1 to 90)	Delete events from Events Log after specified period of days.
Statistics rotate delay:	<input type="text" value="100"/> day(s) (0 - do not rotate)	Rotate statistics to archive after specified number of days.
Delete not actual rates after:	<input type="text" value="360"/> day(s) (0 - do not delete)	Delete rates from system, when they are not actual and effective date is older than specified number of days.
Delete parsed CDR-files after:	<input type="text" value="180"/> day(s) (0 - do not delete)	After what number of days already parsed and processed CDR-files should be deleted from local server.
Delete archived log-files after:	<input type="text" value="90"/> day(s) (0 - do not delete)	After what number of days archived log-files should be deleted from local server.
Delete DIDs history from log after:	<input type="text" value="89"/> day(s) (from 1 to 90)	Delete DIDs history from DIDs history after specified period of days.


Field	Description
<b>Delete events from log after</b>	Here you can specify the number of days in which events will be removed from the log-files (when 0 is the value – events won't be deleted)
<b>Statistics rotate delay</b>	Statistics packages rotation delay (for example, if you will enter "3" as a value here, all statistics packages that are older than 3 months will be automatically moved to archive)
<b>Delete not actual rates after</b>	Cleans non-actual rates from database when specified number of days passed
<b>Delete parsed CDR-files after</b>	Define when system should delete old parsed CDR-files
<b>Delete archived log-files after</b>	Define when system should delete archived log-files
<b>Delete DIDs history from log after</b>	Delete DIDs history from DIDs history after specified period of days

# Backup Settings

Backup settings can be set here (Screenshot):

Screenshot: Backup Settings window

BACKUP SETTINGS	
System backup period: <input type="text" value="0"/> hour(s) (0 - do not backup)	How often to backup system, please note that actual backup will be done at the time when Backup Manager process runs.
Destination for backup packages: <input type="text"/>	Absolute path where to put backup packages, it can not be inside root of VCS system.
Leave last X packages: <input type="text" value="10"/>	How many last backup packages to leave.

Field	Description
<b>System backup period</b>	Period of time that specifies when system should backup itself (for example, if you enter 24 as a value, this will mean that that system will backup itself every 24 hours)
<b>Destination for backup packages</b>	Absolute path to the folder where system backup copies will be stored <div style="border: 1px solid red; padding: 5px; margin-top: 10px;"> <b>Warning!</b> This folder must not be within any system folders!</div>
<b>Leave last X packages</b>	Parameter, that specifies how many backup copies will be stored at one given time (for example, if you will enter 3 as a value here, then only three copies will be stored. When the fourth copy is added, the oldest one will be deleted)

# System

This section of our Guide contains everything that relates to the *System* tab of JeraSoft VoIP Carrier Suite. For more details please go to the related subsections:

- [Events Log](#)
- [Audit Log](#)
- [Mail Queue](#)
- [System Status](#)
- [Task Scheduler](#)
- [API Testbed](#)
- [Users](#)
- [Roles](#)

# Events Log

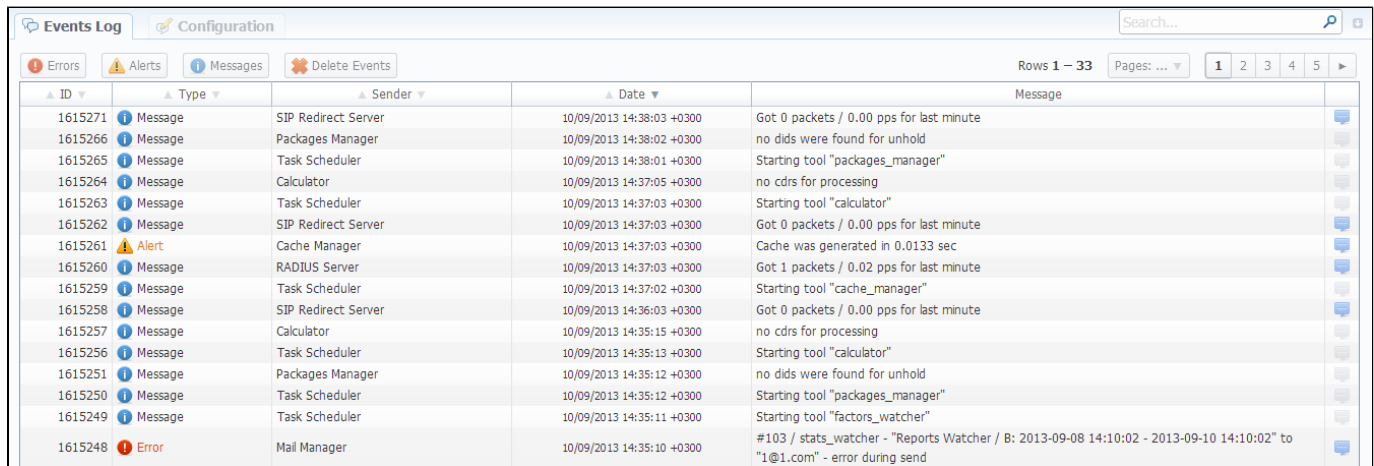
## On this page

- [Events Log Section Main Window](#)
- [Configuration Section Tab](#)

## Events Log Section Main Window




This section displays the list of all events recorded by the system (Screenshot):

Screenshot: *Events Log section main window*



ID	Type	Sender	Date	Message
1615271	Message	SIP Redirect Server	10/09/2013 14:38:03 +0300	Got 0 packets / 0.00 pps for last minute
1615266	Message	Packages Manager	10/09/2013 14:38:02 +0300	no dids were found for unhold
1615265	Message	Task Scheduler	10/09/2013 14:38:01 +0300	Starting tool "packages_manager"
1615264	Message	Calculator	10/09/2013 14:37:05 +0300	no cdrs for processing
1615263	Message	Task Scheduler	10/09/2013 14:37:03 +0300	Starting tool "calculator"
1615262	Message	SIP Redirect Server	10/09/2013 14:37:03 +0300	Got 0 packets / 0.00 pps for last minute
1615261	Alert	Cache Manager	10/09/2013 14:37:03 +0300	Cache was generated in 0.0133 sec
1615260	Message	RADIUS Server	10/09/2013 14:37:03 +0300	Got 1 packets / 0.02 pps for last minute
1615259	Message	Task Scheduler	10/09/2013 14:37:02 +0300	Starting tool "cache_manager"
1615258	Message	SIP Redirect Server	10/09/2013 14:36:03 +0300	Got 0 packets / 0.00 pps for last minute
1615257	Message	Calculator	10/09/2013 14:35:15 +0300	no cdrs for processing
1615256	Message	Task Scheduler	10/09/2013 14:35:13 +0300	Starting tool "calculator"
1615251	Message	Packages Manager	10/09/2013 14:35:12 +0300	no dids were found for unhold
1615250	Message	Task Scheduler	10/09/2013 14:35:12 +0300	Starting tool "packages_manager"
1615249	Message	Task Scheduler	10/09/2013 14:35:11 +0300	Starting tool "factors_watcher"
1615248	Error	Mail Manager	10/09/2013 14:35:10 +0300	#103 / stats_watcher - "Reports Watcher / B: 2013-09-08 14:10:02 - 2013-09-10 14:10:02" to "1@1.com" - error during send

There are few types of events:


Event	Description
	Errors
	Alerts
	Messages

In *Sender* row you can view the name of the system sender module (module, that sent the event).

Main window displays general list of events by default. You can filter them by types or groups by using search panel tools.

For example, system records following events:

- incoming or outgoing call client is not registered within the system;
- phone number prefix is not registered within system;
- incoming call price is more than outgoing call price;
- incoming or outgoing call was rejected;
- etc.

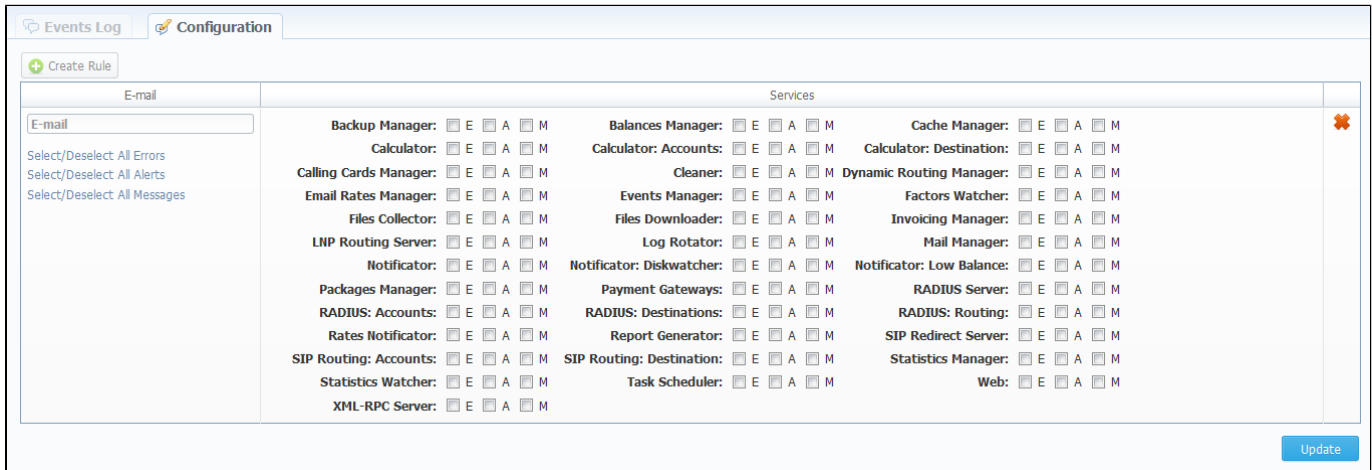
 **Warning!** When you press "Delete Events" button, all events that satisfy current search query will be deleted from the system!



# Configuration Section Tab

This section is used to inform system's users about all recorded events. Main window is displayed on Screenshot:

Screenshot: Configuration section tab main window



You may choose group and type of event, and specify an e-mail address to which notifications of the chosen type will be sent. You can add new set of empty fields by pressing "Create Rule" button. You can confirm current configuration of events by pressing "Update" button.

# Audit Log

## Audit Log List

This section displays detailed information concerning all actions performed by users in VCS with *Clients, Resellers, Accounts, Calling Cards* (Screenshot):

Screenshot: Audit Log section main window

Modification Time	Item	Action	Changes	DB Action	User	Context
12/25/2014 14:15:27 +0000	Vendor A	Client Modification	Orig Rate Table ID: 39 Routing Plan ID: 3	UPDATE	Administrator	Web
12/25/2014 14:15:24 +0000	Vendor A	Client Creation	ID: 113 Reseller ID: 14 Name: Vendor A	INSERT	Administrator	Web
12/25/2014 14:03:14 +0000	Client1	Client Modification	Client Panel: true Login: client Password: 62608e08adc29a8d6dbc9754e659f125	UPDATE	Administrator	Web
12/25/2014 14:01:47 +0000	Cl_for_rates_analysis_2	Client Removal	Status: deleted ← active	UPDATE	Administrator	Web
12/25/2014 14:00:26 +0000	Client A	Client Modification	Groups: Customers	UPDATE	Administrator	Web
12/25/2014 14:00:26 +0000	Client A	Client Modification	Groups: Customers	UPDATE	Administrator	Web

Column	Description
Modification Time	Data and time of made actions or modifications
Item	The list of objects which were modified
Action	The list of made actions: creation, modification or removal
Changes	The list of changes and detailed information on what exactly were changed
DB Action	Actions made in database
User	This column shows the user name by whom manipulations were made
Context	In what way manipulations were made, i.e. using Web interface or API

Quick Search filters (Screenshot below) in *Audit Log section* main window helps in finding items and actions made over item (for instance, make filtration by clients which were modified etc.). To open this form click on button.

Screenshot: Quick Search form

Modification Time	Item	Action	Changes	DB Action	User	Context
10/09/2014 09:51:09 +0000	Customer A	Client Modification	Orig Rate Table ID: 39 Routing Plan ID: 4			
10/09/2014 09:50:59 +0000	Customer 1	Client Removal	Status: deleted ← active			
10/09/2014 09:47:35 +0000	Customer 1	Client Creation	Orig Rate Table ID: 39 Routing Plan ID: 4	INSERT	demo	Web
10/09/2014 09:46:43 +0000	Customer A	Client Creation		INSERT	demo	Web
10/09/2014 09:39:28 +0000	Client1	Client Modification	Allowed Credit: 50.00 ← 10.00	UPDATE	demo	Web

Search...

Item Type: Clients

User: demo

Action:

Period:  -

Reset Search

In case when a client, reseller etc. was fully deleted, there is a possibility to see state of this object at the time of its removal, so called *Historic State*, by clicking on its name in *Item column* respectively (Screenshot).

Screenshot: Historic State window

**SYSTEM INFORMATION**

Name:

Reseller:

Currency:

Timezone:

Status:

Groups:

Tax Profile:

Bill Calls by:

Hidden Numbers

**CLIENT PANEL**

Login:

Password:

Access:

**TERMINATOR SETTINGS**

Rate Table:

Capacity:  channels

**ORIGINATOR SETTINGS**

Allowed Credit:  DKK

Payment Terms:

Rate Table:

Routing Plan:

Capacity:  channels

**LOW BALANCE NOTIFICATION**

Notify Client:  DKK

Notify Admin:  DKK

**AUTOINVOICING**

Template:

Last Invoiced:

**RATE NOTIFICATION**

Format:

Notify type:

**COMPANY INFO**

Name:

Main E-mail:

NOC E-mail:

Billing E-mail:

Rates E-mail:

Address:

Tax ID:

Reg ID:

Account Details:

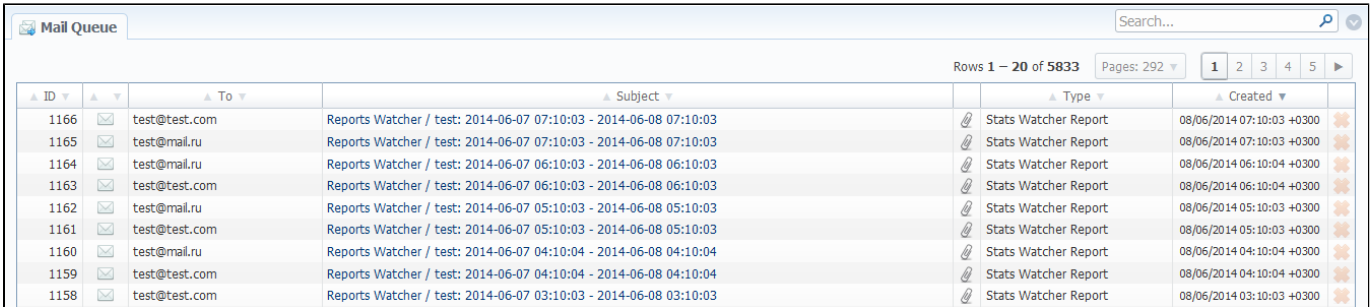
Locale:

Close

# Mail Queue

Mail Queue section displays all system e-mails that were already sent or are waiting to be sent. Main window may look like on Screenshot:

Screenshot: Mail Queue section main window



The screenshot shows a web interface for the Mail Queue section. At the top, there is a search bar and a navigation bar with page numbers 1, 2, 3, 4, 5. Below the navigation bar is a table with columns: ID, To, Subject, Type, and Created. The table contains 10 rows of data, each representing an email record. The 'To' column shows email addresses like test@test.com and test@mail.ru. The 'Subject' column shows report titles and time ranges. The 'Type' column shows 'Stats Watcher Report'. The 'Created' column shows dates and times with a +0300 offset.

ID	To	Subject	Type	Created
1166	test@test.com	Reports Watcher / test: 2014-06-07 07:10:03 - 2014-06-08 07:10:03	Stats Watcher Report	08/06/2014 07:10:03 +0300
1165	test@mail.ru	Reports Watcher / test: 2014-06-07 07:10:03 - 2014-06-08 07:10:03	Stats Watcher Report	08/06/2014 07:10:03 +0300
1164	test@mail.ru	Reports Watcher / test: 2014-06-07 06:10:03 - 2014-06-08 06:10:03	Stats Watcher Report	08/06/2014 06:10:04 +0300
1163	test@test.com	Reports Watcher / test: 2014-06-07 06:10:03 - 2014-06-08 06:10:03	Stats Watcher Report	08/06/2014 06:10:04 +0300
1162	test@mail.ru	Reports Watcher / test: 2014-06-07 05:10:03 - 2014-06-08 05:10:03	Stats Watcher Report	08/06/2014 05:10:03 +0300
1161	test@test.com	Reports Watcher / test: 2014-06-07 05:10:03 - 2014-06-08 05:10:03	Stats Watcher Report	08/06/2014 05:10:03 +0300
1160	test@mail.ru	Reports Watcher / test: 2014-06-07 04:10:04 - 2014-06-08 04:10:04	Stats Watcher Report	08/06/2014 04:10:04 +0300
1159	test@test.com	Reports Watcher / test: 2014-06-07 04:10:04 - 2014-06-08 04:10:04	Stats Watcher Report	08/06/2014 04:10:04 +0300
1158	test@test.com	Reports Watcher / test: 2014-06-07 03:10:03 - 2014-06-08 03:10:03	Stats Watcher Report	08/06/2014 03:10:03 +0300

These can be invoices, low balance notifications or other types of messages system sends in form of e-mails.

# System Status

This section displays all currently launched system services, system load info and current system database sessions of the main server. In addition, this section displays the status of *Redundancy and Reporting servers* (Screenshot):

Screenshot: System Status section main window

System Status
MASTER

---

**LOCALHOST**

CPU: 1 Core(s)  
 LA: 0 / 0.01 / 0  
 Memory: 1.83 GB / 1.54 GB  
 Services: 4

ID	Service	Started on	Uptime		
24051	RADIUS Server	12/23/2014 23:01:19 +0000	17:40:08		
24152	SIP Redirect Server	12/23/2014 23:01:26 +0000	17:40:01		
24191	Calculator	12/23/2014 23:02:02 +0000	17:39:24		
23864	XML-RPC Server	12/23/2014 23:01:04 +0000	17:40:22		

Some processes can not be stopped via web interface, so you have to login on server via SSH to stop them.

---

**MASTER DATABASE SESSIONS**

ID	Application	Session Start	Query Start	Duration	Query
10993	webAdmin:demo:system_status/info: [REDACTED]	12/24/2014 16:41:26 +0000	12/24/2014 16:41:26 +0000	00:00:00	SELECT *, (now()-backend_start) AS duration FROM pg_stat_activity WHERE TRUE AND "datname" = 'vcs' AND "username" = 'vcs' ORDER BY "duration" ASC
10992	Calculator	12/24/2014 16:41:26 +0000	12/24/2014 16:41:26 +0000	00:00:00	SELECT 1
24207	Calculator	12/23/2014 23:02:02 +0000	12/24/2014 16:41:26 +0000	17:39:24	IDLE
24206	Calculator	12/23/2014 23:02:02 +0000	12/23/2014 23:02:02 +0000	17:39:24	IDLE
24205	Calculator	12/23/2014 23:02:02 +0000	12/23/2014 23:02:02 +0000	17:39:24	IDLE
24204	Calculator	12/23/2014 23:02:02 +0000	12/23/2014 23:02:02 +0000	17:39:24	IDLE
24203	Calculator	12/23/2014 23:02:02 +0000	12/23/2014 23:02:02 +0000	17:39:24	IDLE
24197	Calculator	12/23/2014 23:02:02 +0000	12/24/2014 16:41:26 +0000	17:39:24	IDLE
24190	Task Scheduler	12/23/2014 23:02:02 +0000	12/23/2014 23:02:02 +0000	17:39:24	IDLE
24158	SIP Redirect Server	12/23/2014 23:01:26 +0000	12/23/2014 23:01:26 +0000	17:40:00	IDLE
24157	SIP Redirect Server	12/23/2014 23:01:26 +0000	12/23/2014 23:01:26 +0000	17:40:00	IDLE
24154	SIP Redirect Server	12/23/2014 23:01:26 +0000	12/24/2014 16:40:57 +0000	17:40:00	IDLE
24059	RADIUS Server	12/23/2014 23:01:19 +0000	12/23/2014 23:01:19 +0000	17:40:07	IDLE
24058	RADIUS Server	12/23/2014 23:01:19 +0000	12/23/2014 23:01:19 +0000	17:40:07	IDLE
24057	RADIUS Server	12/23/2014 23:01:19 +0000	12/23/2014 23:01:19 +0000	17:40:07	IDLE
24053	RADIUS Server	12/23/2014 23:01:19 +0000	12/23/2014 23:01:19 +0000	17:40:07	IDLE
23866	XML-RPC Server	12/23/2014 23:01:04 +0000	12/23/2014 23:01:04 +0000	17:40:21	IDLE


Localhost table columns description is following:

Column	Description
<b>ID</b>	System service ID
<b>Service</b>	Name of system service
<b>Started on</b>	Service start date
<b>Uptime</b>	Service current uptime

By using button the service is started, with button it is restarted, and with button service is stopped.

Master Database Sessions table columns description is following:

Column	Description
<b>ID</b>	Database session ID
<b>Application</b>	Name of the application
<b>Session Start</b>	Session start date
<b>Query Start</b>	Query start date
<b>Duration</b>	Session duration
<b>Query</b>	Query description

You can kill any of current sessions by pressing  button.

# Task Scheduler

## On this page

- [Task Scheduler](#)
- [Cache Manager](#)

## Task Scheduler

This section represents a task scheduler to manage system utilities (Screenshot):

Screenshot: Task Scheduler section main window

Active	Manual Run	Name	Run at	In Queue From	Last Run	
		Backup Manager	20 minute(s), 3 hour(s), every 1 day(s)	—	15/02/2014 13:18:41 +0300	
		Balances Manager	20 minute(s), 3 hour(s), every 1 day(s)	—	15/02/2014 13:18:42 +0300	
		RADIUS Server	every 50 minute(s)	—	22/04/2014 11:10:51 +0300	
		SIP Redirect Server	every 50 minute(s)	—	22/04/2014 11:10:54 +0300	
		Cache Manager	every 6 minute(s)	—	22/04/2014 11:10:59 +0300	
		Calculator	every 10 minute(s)	—	22/04/2014 11:10:48 +0300	
		Calling Cards Manager	5 minute(s), every 1 hour(s)	—	18/03/2014 21:05:02 +0300	
		Cleaner	20 minute(s), 1 hour(s), every 1 day(s)	—	18/03/2014 02:20:02 +0300	
		Dynamic Routing Manager	every 30 minute(s)	—	21/03/2014 17:54:55 +0300	
		Email Rates Manager	1 minute(s), 5 hour(s), every 1 day(s)	—	19/03/2014 13:30:17 +0300	
		Events Manager	every 5 minute(s)	—	22/04/2014 11:11:01 +0300	
		Factors Watcher	every 5 minute(s)	—	21/03/2014 17:54:47 +0300	
		Files Collector	every 10 minute(s)	—	21/03/2014 17:54:54 +0300	
		Files Downloader	every 5 minute(s)	—	22/04/2014 11:10:57 +0300	
		Invoicing Manager	20 minute(s), every 1 hour(s)	—	18/03/2014 21:20:02 +0300	
		Log Rotator	10 minute(s), 1 hour(s), every 1 day(s)	—	18/03/2014 02:10:02 +0300	
		Mail Manager	every 5 minute(s)	—	22/04/2014 11:10:58 +0300	
		Notifier	30 minute(s), every 1 hour(s)	—	18/03/2014 20:30:02 +0300	
		Packages Manager	every 20 minute(s)	—	22/04/2014 11:10:52 +0300	
		Rates Notificator	every 15 minute(s)	—	22/04/2014 11:11:00 +0300	
		Report Generator	every 16 minute(s)	—	22/04/2014 11:10:53 +0300	
		Statistics Manager	every 20 minute(s)	—	21/03/2014 17:54:51 +0300	
		Statistics Watcher	10 minute(s), every 1 hour(s)	—	22/04/2014 11:10:49 +0300	
		XML-RPC Server	every 10 minute(s)	—	22/04/2014 11:10:46 +0300	

Utility	Description
<b>Backup Manager</b>	Utility that manages system backup processes
<b>Balances Manager</b>	Creates automatic charges
<b>RADIUS Server</b>	RADIUS server process
<b>SIP Redirect Server</b>	SIP Redirect server process
<b>Cache Manager</b>	Cache Manager process
<b>Calculator</b>	Utility that processes all data collected from CDR-files
<b>Calling Card Manager</b>	<i>Calling Cards</i> manager process
<b>Cleaner</b>	Utility that automatically cleans old messages from <i>Events Log</i> section
<b>Dynamic Routing Manager</b>	Utility that creates routing tables used in Dynamic Routing feature
<b>Email Rates Manager</b>	Utility that imports rate tables updates from emails
<b>Events Manager</b>	Process that sends events to e-mails according to <i>Events Config</i>
<b>Factors Watcher</b>	Utility that controls <i>Factors Watcher</i> tool
<b>Files Collector</b>	Utility that controls file collectors

<b>Files Downloader</b>	Utility that automatically downloads cdr-files from switch host
<b>Invoicing Manager</b>	Utility that manages the autoinvoicing feature
<b>Log Rotator</b>	Utility that controls log-files
<b>Mail Manager</b>	Sends e-mails from mail queue (invoices, notifications etc)
<b>Notifier</b>	Notifies in case of low balance or HDD space events
<b>Packages Manager</b>	Utility that manages your packages
<b>Rates Notificator</b>	Utility that notifies clients about rate changes
<b>Report Generator</b>	Utility that manages data generation for reports
<b>Statistics Manager</b>	Utility that manages statistics packages
<b>Statistics Watcher</b>	Utility that sends generated statistic reports by scheduled time
<b>XML-RPC Server</b>	XML-RPC server process

## Cache Manager

*Cache Manager* is rather specific tool, because it continuously monitors and includes client-related changes for RADIUS and SIP Redirect (among other things). That tool is listed among others in Task Scheduler.

So, the tip regarding *Cache Manager* is following: if customer had no assigned packets, accounts, presets or translations, and you decided to add one, then RADIUS or SIP Redirect servers will notice those changes only after *Cache Manager* runs and does it's job. Please note, that this is only applicable if customer previously had absolutely no items listed above, in other words, if you add second account to customer, then that change will be effective instantly.



# API Testbed

This section allows to send/receive JSON-RPC API calls via web interface. It is important to understand that this section allows you to actually run API requests, it is not a simulation. So if you requested to delete or modify a client by running a API request, this client will be actually deleted from the system or modified.

Screenshot: API Testbed

The screenshot shows the API Testbed web interface. It has a header with a home icon and the text "API Testbed". Below the header, there are four main sections: "API SERVER" with a "JSON-RPC URL" input field; "API METHOD" with "Module" (set to "Management / Clients") and "Action" (set to "list") dropdown menus; "AUTHENTICATION" with "Login" (set to "admin") and "Password" input fields; and "PARAMETERS" with a large text area containing an empty JSON object "{}". A "Send Request" button is located at the bottom right of the interface.

Field	Description
JSON-RPC URL	URL is set by default according to current server settings
Module	Select which module to call
Action	Set which action to call
Login	Specify a login that will be used during the call
Password	Specify a password that will be used during the call
Parameters	Enter JSON data that will be sent to the API

After the "Send Request" button is pressed you will see:

- **API Request** - full JSON message that has been sent;
- **API Response** - full JSON response from RPC server.

Both request and response are shown as JSON tree with ability to switch to RAW JSON (Screenshot).

Screenshot: API Request & API Response

The screenshot shows the API Testbed web interface displaying the JSON request and response. The "API REQUEST" section shows a JSON object with fields: "jsonrpc": "2.0", "method": "clients.didsList", "params": {"auth": {"login": "admin", "password": "password"}}, and "id": "api-testbed". The "API RESPONSE" section shows a JSON object with fields: "jsonrpc": "2.0", "id": "api-testbed", "result": {"code": false, "session\_id": "1-dkh1vhdb5p05f9euuuptekbe1", "messages": [{"...}]}, "return": {}, and "errors": {}.

# Users

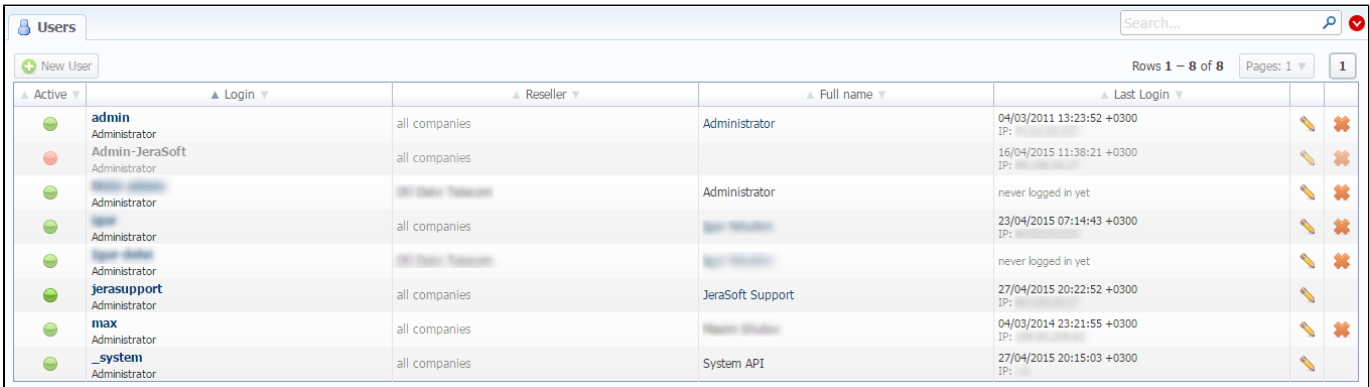
## On this page

- [Users List](#)
- [Adding New User](#)

## Users List

This section displays system's registered users (Screenshot):

*Screenshot: Users list main window*




Active	Login	Reseller	Full name	Last Login		
	admin	all companies	Administrator	04/03/2011 13:23:52 +0300 IP: [redacted]		
	Admin-JeraSoft	all companies	Administrator	16/04/2015 11:38:21 +0300 IP: [redacted]		
	[redacted]	[redacted]	Administrator	never logged in yet		
	[redacted]	all companies	[redacted]	23/04/2015 07:14:43 +0300 IP: [redacted]		
	[redacted]	[redacted]	[redacted]	never logged in yet		
	jerasupport	all companies	JeraSoft Support	27/04/2015 20:22:52 +0300 IP: [redacted]		
	max	all companies	[redacted]	04/03/2014 23:21:55 +0300 IP: [redacted]		
	_system	all companies	System API	27/04/2015 20:15:03 +0300 IP: [redacted]		

Column	Description
Active	Users status
Login	Users accounts name
Reseller	Owners to whom users belong
Full name	Mailto links of users
Last Login	Data and time of the last users' login, and users IP

## Adding New User

You can add new user by pressing "New User" button. Then, in pop-up window, you need to specify login, password, user's full name, e-mail, and configure his access rights (so called "roles") (Screenshot below). Also don't forget to specify a reseller that this user will represent. By doing so you will allow new user to see and manipulate only clients, rate tables and other specific data that belong to specified reseller and his agents (for example, if you create client under Reseller A, which already has Agent A under him, this user will only see clients that belong to Reseller A and Agent A etc). Press "OK" button to add new user.

*Screenshot: Adding new user window*

 **New User**

Login:

Password:

Role: Accounting ▼

Disabled

---

Full name:

E-mail:

---


Reseller: all resellers ▼

if empty — no access limits

---

Allowed IPs:

Field	Description
<b>Login</b>	Specify a user login
<b>Password</b>	Define a password
<b>Role</b>	Select a role for a user from drop down list
<b>"Disabled" Checkbox</b>	Check if you need to temporary restrict access to the system for a user
<b>Full name</b>	Enter a user name. Please note that " <i>Full name</i> " is a mailto link displayed in " <i>Users</i> " section
<b>E-mail</b>	Specify a user e-mail
<b>Reseller</b>	Select a reseller for a user
<b>Allowed IPs</b>	Enter IPs or subnets, one record per line, i.e. user will have access to the system only if he/she logs in via specified IPs

 Tip: Each user can have only one assigned role for.

# Roles

## On this page

- [Roles List](#)
- [Adding New Role](#)
- [Knowledge Base Articles](#)

## Roles List

This section allows to specify access rights for different sections of the system (Screenshot):

*Screenshot: Roles section main window*



The screenshot shows a web interface for managing roles. At the top, there is a search bar and a 'New Role' button. Below this is a table with a header 'Name' and a column for access rights. The table contains six rows of roles, each with a corresponding access right icon (a red 'X').

Name	Access Rights
Accounting	✘
Administrator	✘
Call Shop Manager	✘
Call Shop Operator	✘
Monitoring	✘
Resellers	✘

## Adding New Role

To add a new role, press "New Role" button.

In window that opens (Screenshot below), enter new role's name and select respective access rights for sections in *Access Permissions* table.

"Default Module" field specifies a default section, that will be displayed when you login into system.

*Screenshot: Adding new role window*

 **New Role**


Name:

Default Module:  

**ENTRIES**

Name	Access Permissions				
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Management / Clients		<input checked="" type="checkbox"/> Full Delete		<input type="checkbox"/> Read	<input type="checkbox"/> Write
Management / Accounts				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Management / Rate Tables				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Management / Invoices				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Management / Transactions			<input type="checkbox"/> Execute	<input type="checkbox"/> Read	<input type="checkbox"/> Write
Management / Balance Report			<input type="checkbox"/> Execute		
Management / Resellers		<input checked="" type="checkbox"/> Full Delete		<input type="checkbox"/> Read	<input type="checkbox"/> Write
Retail / Calling Cards				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Retail / Top-up Cards				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Retail / Call Shops				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Retail / Packages				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Retail / DID Management				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Statistics / Dashboard			<input type="checkbox"/> Execute		
Statistics / Summary Report	<input type="checkbox"/> Billing data		<input type="checkbox"/> Execute		
Statistics / Orig-Term Report	<input type="checkbox"/> Billing data		<input type="checkbox"/> Execute		
Statistics / Profit Report			<input type="checkbox"/> Execute		
Statistics / LCR Lists			<input type="checkbox"/> Execute		
Statistics / CDRs List			<input type="checkbox"/> Execute		
Statistics / Mismatches Report			<input type="checkbox"/> Execute		
Statistics / Calls Rerating			<input type="checkbox"/> Execute		
Statistics / Reports to E-mail			<input type="checkbox"/> Execute	<input type="checkbox"/> Read	
Statistics / Archive Management				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Tools / Rates Analysis			<input type="checkbox"/> Execute		
Tools / Rates Generator			<input type="checkbox"/> Execute		
Tools / Active Calls			<input type="checkbox"/> Execute		
Tools / Factors Watcher				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Tools / CDRs Disputes				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Routing / Routing Plans				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Routing / Routing Analysis			<input type="checkbox"/> Execute		
Routing / DR Policies				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Configuration / Code Decks				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Configuration / Currencies				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Configuration / Payment Accounts				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Configuration / Payment Terms				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Configuration / Payment Gateways				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Configuration / Time Profiles				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Configuration / Taxes Profiles				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Configuration / Groups				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Configuration / Invoices Templates				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Configuration / VoIP Gateways				<input type="checkbox"/> Read	<input type="checkbox"/> Write
Configuration / Settings				<input type="checkbox"/> Read	<input type="checkbox"/> Write
System / Events Log				<input type="checkbox"/> Read	<input type="checkbox"/> Write
System / Audit Log				<input type="checkbox"/> Read	
System / Mail Queue				<input type="checkbox"/> Read	<input type="checkbox"/> Write
System / System Status				<input type="checkbox"/> Read	<input type="checkbox"/> Write
System / Task Scheduler				<input type="checkbox"/> Read	<input type="checkbox"/> Write
System / Users				<input type="checkbox"/> Read	<input type="checkbox"/> Write
System / Roles				<input type="checkbox"/> Read	<input type="checkbox"/> Write
System / About System				<input type="checkbox"/> Read	
System / Get Support			<input type="checkbox"/> Execute		
System / Change Password			<input type="checkbox"/> Execute		

Checkbox	Description
Read	Allows / forbids read permission
Write	Allows / forbids edit permission
Execute	Allows / forbids system services execution
Full Delete	Allows / forbids full delete permission
Billing data	Allows / forbids billing data permission

 **Tip:** System has 3 preinstalled roles:

- **Administrator** – has all access permissions;
- **Monitoring** – has access permissions with ability to monitor them. Also doesn't have access to technical settings and some statistic info that is available to Administrator only;
- **Resellers** – has access permissions to productively work with its clients. Also doesn't have access to technical settings and some statistic info that is available to Administrator only (use this role when adding Reseller or Agent user).

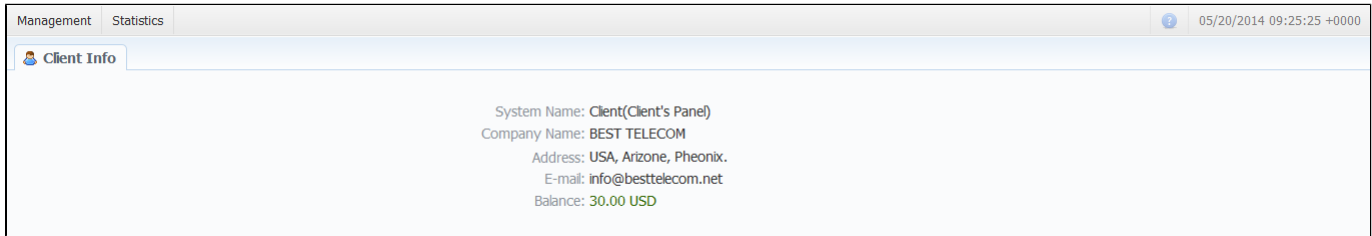
### Knowledge Base Articles

- [How to hide rates in Summary Report for specific system users?](#)

# Customer's Portal

Customer's Portal is a control panel that can be used by client to check his balance and statistics (Screenshot).

Screenshot: Clients' control panel



Customer logs into his control panel by typing [http://vcs\\_ip\\_address/clients](http://vcs_ip_address/clients) in his internet browser and providing his credentials. This login and password are created in *Clients* section by editing customer's properties.

Customer's Portal consists of 2 sections:

Section	Description
<b>Management</b>	Allows viewing of client and balance information ( <i>Client Info</i> subsection), call rates for current client ( <i>Rates</i> subsection), topping up one's balance ( <i>Refill Balance</i> subsection) and viewing accounting ( <i>Balance Report</i> ) report
<b>Statistics</b>	Allows viewing of client's own statistics – summary ( <i>Summary Report</i> ) and detailed ( <i>CDRs List</i> ) reports

Password change procedure is same as for administrative interface user.

You can log out from customer's portal by using *Logout* menu.

# System Shell Tools

## On this page

- [Requirements Checker](#)
- [Services Manager](#)
- [Cluster Manager](#)
  - [Master: Add new Slave](#)
  - [Slave: Promote to Master](#)
  - [Slave: Sync Files](#)
  - [Cluster Status](#)
  - [Options Reference](#)

This section describes **shell tools** required for management of the system at the very system level. All these tools are shipped with the VCS distributive. You need to use SSH or direct access to the server in order to run any of these tools. Please notice that most of given tools require "root" access and show inline help when run without arguments.



### Important!

Please use these tools **only if you have clear understanding** of what you are doing. Misuse of the tools may cause improper function of the system.

## Requirements Checker

The tool is aimed to check **minimal requirements** and **security recommendations** at your server before and after installation.

### Usage

```
/usr/local/vcs/bin/setup-checker
```

The tool should be run under "root" permissions without any arguments. When the tool is run it will perform a list of checks and show results for each of them. Use it:

1. Before installation of the VCS to check **minimal hardware and software requirements**. At this stage you may [download the tool](#) separately from the VCS.
2. After installation of the VCS to check **security recommendations**. Usually you will need to tune your firewall settings according to the [JeraSoft Billing First Steps](#).



### Please Note!

The tool checks only minimal requirements. **Real hardware requirements** highly depend on your traffic and deployment model.

## Services Manager

The tool is used for **managing the VCS Services**. It allows you to correctly start, stop, get status of the VCS Services like RADIUS Server, SIP Server, Calculator, etc.

### Usage

```
/usr/local/vcs/bin/service <service-name> <action> [<options>]
```

The tool should be run under "root" or "vcs" user. Service manager takes 2 arguments:

Argument	Description
<service-name>	Short name of the service. Run the tool without arguments to get list of the services at your system.



<code>&lt;action&gt;</code>	Action to perform, one of the following: <ul style="list-style-type: none"> <li>• <i>start</i> - start the service</li> <li>• <i>stop</i> - stop the service</li> <li>• <i>restart</i> - stop and then start the service</li> <li>• <i>reload</i> - force config re-read without restart</li> <li>• <i>status</i> - return current status of the tool</li> </ul>
-----------------------------	--

Additionally you may pass next options:

Option	Description
<code>--path=&lt;path&gt;</code>	Specify the VCS location. Only if different from <code>/usr/local/vcs</code> .
<code>--user=&lt;user&gt;</code>	Specify user the VCS runs under. Only if different from "vcs".

For your convenience there are some examples below:

```
Restart RADIUS Server


/usr/local/vcs/bin/service bbradiusd restart
```

```
Start Files Downloader

/usr/local/vcs/bin/service files_downloader start
```

```
Get status of SIP Server

/usr/local/vcs/bin/bbsipd status
```

 The tool also complies with [LSB Init Scripts](#) standard. It allows you to analyse exit code of each action in case of automated usage.

## Cluster Manager

The tool is used to **manage cluster**. It allows to init the cluster, add more slaves, promote slave to master, etc.

```
Usage

/usr/local/vcs/bin/cluster <command> [<options>]
```

The tool requires "root" permissions. Cluster Manager takes command as mandatory argument and additional options. Some of commands may be run only on Master and others only on Slave. All extra options for the commands are explained below in the corresponding subsection.

### Master: Add new Slave

The command is **run on the Master** and used for:

- **first time initialisation** of the cluster;
- **addition of the new slave** node to the cluster;
- addition of the **old master to work as slave** after failover.

```
Bash

/usr/local/vcs/bin/cluster init --master-ip=<IP-of-master> --slave-ip=<IP-of-slave> [<extra-options>]
```

This command encapsulates 4 sub-commands:

- configuration of the *Master* to ship replication logs (`init-master`)
- configuration of the *Master* to accept connections from the *Slave* (`init-master-access`)
- configuration of the *Slave* to receive replication logs (`init-slave`)
- show status of the cluster (`status`).

Each of these commands may be performed separately if you know exactly what you need.

## Slave: Promote to Master

The command is **run on the Slave** and used to promote current *Slave* to *Master*.

### Bash

```
/usr/local/vcs/bin/cluster promote [<extra-options>]
```

The command is used for failover. After you fix old *Master* you may add it as new *Slave* using "`init`" command.



In case when you have more than 2 nodes in cluster, you need to re-init all other slaves from this new *Master*.

## Slave: Sync Files

The command is **run on the Slave** and used to synchronise files from the *Master*. The command is mostly used in crontab for auto-sync.

### Bash

```
/usr/local/vcs/bin/cluster sync-files --master-ip=<IP-of-master> [<extra-options>]
```

During initialisation of the cluster tool adds this command to the crontab (`/etc/cron.d/vcs-cluster`) at the *Slave* node.

## Cluster Status

The command may be run **on any node** and used to get status of the cluster.

### Bash

```
/usr/local/vcs/bin/cluster status
```

When command is run on the *Master* it shows type of the node and attached Slaves, that are up to date:

```
Status: MASTER  
Slave: <ip-address> [xlog: <last-xlog>]
```

When command is run on the *Slave* it shows type of the node and status of synchronisation.

```
Status: SLAVE [in-sync]
```

In case when the *Slave* is not in synchronisation (NOT-in-sync) with the *Master* you need to re-initialise.

## Options Reference

Some of commands may require additional options:

Option	Description	Default	Use with

<code>--master-ip=&lt;ip&gt;</code>	IP Address of the master server	none	init, sync-files
<code>--master-ssh-port=&lt;port&gt;</code>	SSH Port at the master server	22	init, sync-files
<code>--master-data=&lt;pgsql-data&gt;</code>	Path to PostgreSQL data folder	autodetect	init
<code>--slave-ip=&lt;ip&gt;</code>	IP Address of the slave server	none	init
<code>--slave-ssh-port=&lt;port&gt;</code>	SSH Port at the slave server	22	init
<code>--slave-username=&lt;user&gt;</code>	Login to the slave server	jerasupport	init
<code>--slave-data=&lt;pgsql-data&gt;</code>	Path of PostgreSQL data folder	same as at master	init
<code>--vcs-path=&lt;path&gt;</code>	Path to the VCS location	/usr/local/vcs	init, promote, sync-files
<code>--json</code>	Show status in JSON format		status

# API Reference

## On this page

- [Access the API](#)
- [Authentication](#)
- [API Request](#)
- [API Response](#)
- [Work with files](#)
- [Examples: Pure XML-RPC](#)
- [Examples: Pure JSON-RPC](#)
- [Examples: PHP Library](#)
- [Examples: Python Library](#)
- [Methods Reference](#)

The **JeraSoft VCS API** allows you to easily integrate 3rd party applications with JeraSoft's VCS platform or develop your own tools on top of it. You can use API to retrieve, add or modify data. Every object that you could use in the web interface can be accessed within API, be it client, rate or statistics report.

The JeraSoft VCS API may be accessed using either [XML-RPC](#) or [JSON-RPC](#). Both are fairly standard protocols for remote procedure calls. **Most programming languages** have libraries to work with any of these protocols. The API uses the same logic as the web interface and works very similar, which makes its usage easier.

## Access the API

To access **XML-RPC** interface use:

```
https://<your-system-IP>/xmlrpc/
```

To access **JSON-RPC** interface use:

```
https://<your-system-IP>/jsonrpc/
```

Before accessing the system make sure that your **IP is allowed** on the firewall. Also please make sure that rest of the world is blocked by firewall. You can get more details about it in the [JeraSoft Billing First Steps](#).

## Authentication

In order to make any request to the API you need to **authenticate** using login and password. We strongly recommend having **separate API account** for each application you make calls from. Besides this, we recommend having dedicated Role for API users, which allows only needed actions. Authentication is done by sending the following array along with other arguments:

```
{
  "auth": {
    "login": "admin",
    "password": "password"
  }
}
```

In order to increase performance you may not authenticate for each call but do it once and **save Session ID** given back to you in response. This Session ID may be sent in further requests instead of login and passwords to continue using same session without re-authentication. Session ID should be sent with other arguments in the following format:

```
{
  "SID": "1-dsglnqr4qnsdihr8dj6da7qr4"
}
```

It should be mentioned that authentication should be made **within** first call to the API.

# API Request

Each request besides authentication information should include:

Name	Description	Example
Method Name	Name of the module and action to call	clients.editForm
Arguments	List of arguments for the method call	id_clients = 11 auth[login] = admin auth[password] = password

# API Response

Each response will include the following information:

Name	Description	Example
code	Return code, usually true on success or false on failure	1
return	Array with data returned by method	[client] => Array ( [id] => 11 [id_companies] => 3 [type] => 0 [name] => Customer A [groups] => Customers [c_dt] => 2013-03-30 16:26:15+03 [status] => active [credit] => 100 ... )
session_id	Session ID which may be used to speed up next calls	1-dsglnqr4qnsdih8dj6da7qr4
messages	List of success / warning messages returned by message	array()
errors	List of abnormal errors if they fired during processing	array()

# Work with files

There is a specific case when your request to billing should provide file response. Some examples of this would be an invoice file download, CDRs List download, etc. Using plain XML-RPC or JSON-RPC with base64 on top of it is not effective here as the file may contain hundreds of megabytes. This special case is handled with common **HTTP Request** to:

```
https://<your-system-IP>/admin/
```

The request may be either GET or POST and should include either Login and Password or Session ID. In response the server will send the file according to HTTP protocol.

# Examples: Pure XML-RPC

## XML-RPC Request

```
<?xml version="1.0" encoding="iso-8859-1"?>  
<methodCall>  
<methodName>clients.editForm</methodName>  
<params>  
<param>
```

```

<value>
  <struct>
    <member>
      <name>id_clients</name>
      <value>
        <int>11</int>
      </value>
    </member>
    <member>
      <name>auth</name>
      <value>
        <struct>
          <member>
            <name>login</name>
            <value>
              <string>admin</string>
            </value>
          </member>
          <member>
            <name>password</name>
            <value>
              <string>password</string>
            </value>
          </member>
        </struct>
      </value>
    </member>
  </struct>
</value>
</param>
</params>
</methodCall>

```

## XML-RPC Response

```

<?xml version="1.0" encoding="utf-8"?>
<methodResponse>
  <params>
    <param>
      <value>
        <struct>
          <member>
            <name>code</name>
            <value>
              <boolean>1</boolean>
            </value>
          </member>
          <member>
            <name>session_id</name>
            <value>
              <string>1-dsglnqr4qnsdihr8djj6da7qr4</string>
            </value>
          </member>
          <member>
            <name>messages</name>
            <value>
              <array>
                <data/>
              </array>
            </value>
          </member>
          <member>
            <name>return</name>
            <value>
              <struct>
                <member>
                  <name>client</name>
                  <value>
                    <struct>

```

```

    <member>
      <name>id</name>
      <value>
        <int>11</int>
      </value>
    </member>
  <member>
    <name>name</name>
    <value>
      <string>Customer A</string>
    </value>
  </member>
  <member>
    <name>groups</name>
    <value>
      <string>Customers</string>
    </value>
  </member>
  <member>
    <name>c_dt</name>
    <value>
      <string>2013-03-30 16:26:15+03</string>
    </value>
  </member>
  <member>
    <name>status</name>
    <value>
      <string>active</string>
    </value>
  </member>
  <member>
    <name>credit</name>
    <value>
      <double>100</double>
    </value>
  </member>
</struct>
</value>
</member>
</struct>
</value>
</member>
</struct>
</value>
</param>
</params>
</methodResponse>

```

## Examples: Pure JSON-RPC

### JSON-RPC Request

```

{
  "method": "clients.editForm",
  "params": {
    "id_clients": 11,
    "SID": "1-bmdgeu6bn22jlmkuffg391t513"
  },
  "id": 1
}

```

### JSON-RPC Response

```

{
  "jsonrpc": "2.0",

```

```

"id": 1,
"result": {
  "code": true,
  "session_id": "1-bmdgeu6bn22jlmkuffg391t513",
  "messages": [],
  "return": {
    "client": {
      "id": 11,
      "name": "Customer A",
      "groups": "Customers",
      "c_dt": "2013-03-30 16:26:15+03",
      "status": "active",
      "credit": 100,
      "c_company": "Mancy",
      "c_address": null,
      "c_email": "admin@example.net",
      "c_email_tech": "admin@example.net",
      "c_email_billing": "admin@example.net",
      "c_email_rates": "admin@example.net",
      "id_currencies": 27
    },
  },
  "errors": []
}
}

```

## Examples: PHP Library

For you convenience it is always better to have higher level class on top of the simple RPC protocol. You can [download](#) example of such class for PHP. Below is example:

### PHP Example

```

include 'class.VcsApi.php';

// create an API object
$api = new VcsApi('vcs.demo.jerasoft.net', 'demo', 'demo', 80);

// make a call to the API
$data = $api->clients->editForm(array('id_clients' => 8));

/*
VcsApiResponse Object
(
    [code] => 1
    [messages] => Array
        (
        )
    [data] => Array
        (
            [client] => Array
                (
                    [id] => 8
                    [id_companies] => 3
                    [type] => 0
                    [cc_serial] =>
                    [name] => Customer 01
                    [groups] => Vendors, IntraLATA-IntraState, IntraLATA-InterState, InterLATA-IntraState,
InterLATA-InterState, Customers
                    [c_dt] => 2012-03-20 09:29:49+00
                    [status] => active
                    [credit] => 1000
                    ...
                )
            )
)

```



```
)
)
*/
```

## Examples: Python Library

You can [download](#) sample library for Python that simplifies work with with API. Below is the example using this library:

### Python Example

```
import vcsapi

# create an API object
api = vcsapi.Api('vcs.demo.jerasoft.net', 'demo', 'demo', 80)

# make a call to the API
response = api.clients.editForm({'id_clients': 8})

print response.code      # True
print response.messages # [ ]
print response.data      # {'client': {'id': 8, 'type': 0, 'name': 'Customer 01', ...}}
```

## Methods Reference

At the moment we are working hard to bring you full and detailed list of methods, arguments and expected output. However as API fully duplicates web methods, it is easy to find their names and arguments yourselves. Lets check a quick example, like creating a reseller.

In the web interface the link to this action is "<https://<your-billing-IP>/admin/companies/add>", with "*companies*" being a module and "*add*" being a method. The resulting method to call via API is "*companies.add*".

In order to find out arguments for this method you may look for HTTP request in your browser (using FireBug in Firefox, Developer Tools in Chrome). Another way is to check for dump in `/usr/local/vcs/var/log/runtime.log` which looks like:

```
[20-Jan-2012 17:32:06+0200] [webAdmin/#260808] REQUEST: /companies/add
Array
(
  [type] => 10
  [name] => TESTCOMPANY
  [id_companies] =>
  [prepaid] => 1
  [credit] => 0.00
  ...
)
```

This log entry includes full list of the arguments used. However many of them are optional. Try calling method with the arguments you need - system will let you know if you are missing any of the arguments.