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User's Guide

User's Guide will describe all provided features and functions of JeraSoft VoIP Carrier Suite. System is virtually divided in few modules, some of which can be excluded from full VCS package, thus providing more competitive price for the solution if you don't require some functions.

For detailed information please go to the related sections:

- [Management](#)
- [Retail Details](#)
- [Statistics](#)
- [Tools](#)
- [Routing Details](#)
- [Configuration](#)
- [System](#)
- [Password Change and Logout](#)
- [Customer's Portal](#)

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

Clients

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

ID	Name	Reseller	Balance		Rates	
			Mutual	Current	ORIG	TERM
1750	aaaaaaad	ITEST1	-100.00	0.00		
4	Acestar Telecoms	Turtrans LTD	381.15	92.93	o_o	Super Table
1756	Andrey	Company Name1	0.00	0.00		
1762	asd	Company Name1	4.00	4.00		
1365	Beta Co	Turtrans LTD	-2 605.60	-752.67	ORIG RT - Test "Z"	TERM RT / Test "Z"
1243	Bezeq	Testing_reseller1	54 455.26	24 004.00	rt_for_everyone	rt_for_everyone
1754	blabla	Company Name1	0.00	0.00		
1242	BLC Partners	Testing_reseller1	0.00	0.00	o_o	TERM RT / Test "Z"
1244	Calino LLC	KPN1	0.00	0.00		
1707	CollinNet	Testing_reseller1	0.00	0.00	CollinNet_orig	
1368	Custom Term	Man Telco	4 000.00	4 000.00	RT ORIG - Custom Term 5	custom term_RATE
1751	Dexter	Company Name1	0.00	0.00	ORIG RT - Dexter	
1744	Digerati	Company Name1	0.00	0.00	ORIG RT - Digerati	Super Table
1480	fiore_1	Testing_reseller1	0.00	0.00		
1743	fiore_2	Company Name1	0.00	0.00		
1353	GTR Telecom	Turtrans LTD	0.00	0.00		
1752	Jera_teles	Company Name1	0.00	0.00	Jera_teles_orig	
1370	Natalia	Company Name1	0.00	0.00	Natalia_rate	nat_o_rate
1359	NatOrig	Turtrans LTD	1 000.00	1 000.00	nat_o_rate	
1361	NatTerm	Turtrans LTD	0.00	0.00		Super Table

- **ID** – client's identification number;
- **Name** – client's name;
- **Reseller** – name of reseller company respective client belongs to;
- **Balance** – client's balance values:
 - **Mutual** – client's balance calculated on basis of the outstanding invoices and performed payments;
 - **Current** – client's balance calculated on basis of performed payments and charges (for calls, for packages, etc);
- **Rates** – client's rates;
- **ORIG** – rate table for incoming calls;
- **TERM** – rate table for outgoing calls;
- is used to configure list of 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;
- allows access to current client's client control panel (icon will be colored if access is available for customer);
- is used to manage client's balance. It's a shortcut to *Transactions* section;
- is used to assign and manage your packages;
- 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*.

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

Screenshot: Adding/Editing client

The screenshot shows a web-based configuration interface for a client. The top navigation bar includes tabs for General, Custom Fields, Accounts, Presets, Packages, and Notes. The main content area is organized into several panels:

- System Information:** Fields for Name (Customer 1), Reseller (Reseller1), Status (Active), Currency (EUR), Tax Profile, Timezone (default GMT -03:00), and Bill Calls by (disconnect time). Includes a checkbox for 'Enable number formatting' and a 'Client Panel Access' section with a login field (user123) and a list of available client actions like Client Info, Rates List, Balance Refill, etc.
- Originator Settings:** Fields for Mode (Prepaid), Allowed Credit (1000.00 EUR), Rate table, Routing Plan, and Capacity.
- Terminator Settings:** Fields for Rate table and Capacity.
- Autoinvoicing:** Includes checkboxes for 'Autoinvoicing', 'Low Balance Notification', and 'Rate Notification'. Fields for Payment Terms, Invoice Template (new_super_invoice cdrs (pdf)), and Last Invoiced For.
- Company info:** Fields for Name, Main e-mail (ewqfewf@rfgr.hy), NOC e-mail, Billing e-mail (fiore@jerasoft.net), Rates e-mail (ewqfewf@rfgr.hy), Address, Tax ID, Reg ID, Account Details, and Locale.
- Groups:** A list of groups with radio buttons: Wholesale, Registered User (selected), Non-Registered, Premium, Vendors, and Customers.

At the bottom, there are buttons for 'Full Delete', 'OK', 'Cancel', and 'Apply'.

Fill next fields:

- **System Information** – general information about client;
 - **Name** – a client's name;
 - **Reseller** – 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);
 - **Status** – current client status;
 - **Currency** – preferred currency (will be used in invoices);
 - **Timezone** – specify the timezone (will be used in invoices);
 - **Bill Calls By** – select how the system should bill calls of current client – by setup time, connect time or disconnect time (most switch models use disconnect time);
 - **Enable number formatting** – allows you to hide some numbers from calls made by this client;
- **"Client Panel Access" checkbox** – 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: http://vcs_address/clients/

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*.

Important: 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:

- **Login** – client's login;
- **New password** – client's password;
- **Originator Settings** – current clients' billing settings are specified here:
- **Mode** – sets the balance check when *Radius Authorization* is used. The check is on when "Prepaid" is selected, and off when "Postpaid" is;
 - **Allowed Credit** – credit limit;
 - **Rate table** – select the origination rate table;
 - **Routing Plan** – 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 *Accounts* tab);
 - **Capacity** – summary origination capacity for this client;
- **Terminator Settings** – current clients' billing settings are specified here:
 - **Rate table** – select the termination rate table;
 - **Capacity** – summary termination capacity for this client;
- **"Autoinvoicing" checkbox** – activates/deactivates the automatic invoice generation feature for current client. It can be configured with parameters:

- **Payment Terms** – select the payment terms template;
- **Invoice format** – select desirable format for auto-created invoices;
- **Attach CDRs list** – enable if you need to attach cdr-list to your invoices;
- **CDR list format** – select desirable format for attachable CDR list;
- **Last invoiced For** – specify last day of previous invoicing period here;
- **Low Balance Notifications** – here you can setup whether system should make low balance notifications or not:
 - **Notify client** – when clients' balance+credit is below entered value, system will send a notification to clients' *Billing e-mail*;
 - **Notify administrator** – when clients' balance+credit is below entered value, system will send a notification to administrator via *Events Log*;
- **Rate Notification** – here you can enable or disable automatic rates notification for current client:
 - **Format** – select desirable format of rate notification (XLS or CSV);
 - **Notify Type** – specify a type of notification: full price list or only changed rates;
- **Company Info** – some additional information about client can be entered here:
 - **Name** – company name;
 - **Main e-mail** – company e-mail for general inquiries;
 - **NOC e-mail** – company email for technical related questions;
 - **Billing e-mail** – automatically generated invoices and notifications will be sent on this e-mail address;
 - **Rates e-mail** – company e-mail for rates related questions;
 - **Address** – physical company address;
- **Groups** – you can specify a group to which current client will belong to (only available if current user has necessary role installed. Refer to *Client Groups* section);




Note: “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.

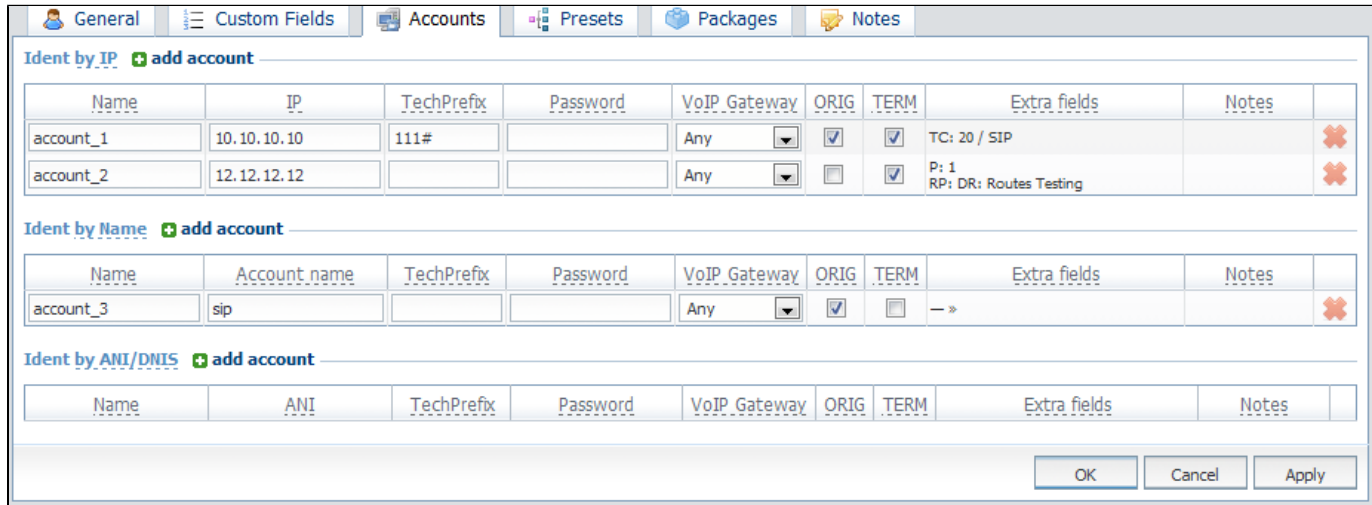
Custom Fields



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. These fields themselves are added in *Management – Resellers* section.


Accounts configuration

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

Screenshot: Accounts configuration



Ident by IP + add account									
Name	IP	TechPrefix	Password	VoIP_Gateway	ORIG	TERM	Extra fields	Notes	
account_1	10.10.10.10	111#		Any	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	TC: 20 / SIP		
account_2	12.12.12.12			Any	<input type="checkbox"/>	<input checked="" type="checkbox"/>	P: 1 RP: DR: Routes Testing		

Ident by Name + add account									
Name	Account name	TechPrefix	Password	VoIP_Gateway	ORIG	TERM	Extra fields	Notes	
account_3	sip			Any	<input checked="" type="checkbox"/>	<input type="checkbox"/>	->		

Ident by ANI/DNIS + add account									
Name	ANI	TechPrefix	Password	VoIP_Gateway	ORIG	TERM	Extra fields	Notes	

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.

To add new account press “Add Account” button in respective section, fill next fields and press “OK”.

- **Name** – name of an account in JeraSoft VCS system;
- **IP** – gateway IP-address. You can specify multiple addresses, by dividing them with “.”. Also you can specify the subnet mask here in “10.0.0.0 /24” CIDR-format;
- **Account Name** – gateway name or user login, that is used for identification;
- **ANI** – called or caller phone number;
- **Tech Prefix** – technical prefix, that is used to identify users, when multiple clients use same gateway;
- **Password** – 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;
- **VoIP Gateway** – current account will be in use only when billing this host calls;
- **ORIG** – allow origination from this gateway;
- **TERM** – allow termination to this gateway;
- **Extra fields** – a number of additional settings:
 - **Capacity** – set capacity for respective traffic direction;
 - **Rate Table** – select rate table for current account (it will have higher priority than rate table set for whole client) either for origination or termination side;
 - **Routing Plan** – you can specify custom routing plan for origination from this account;
 - **Protocol** – select respective protocol for current termination gateway;
 - **Port** – specify port for current termination gateway;
 - **Groups** – 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 **Routing Module Manual** for more information;
 - **Notes** – allows you to add additional information per each account.

You can add unlimited number of accounts for each client.

Presets configuration

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

Origination presets + add preset					
Account name	Code	Code Name	Deny	Expires, min	Added

Termination presets + add preset					
Account name	Code	Code Name	Deny	Expires, min	Added

Traffic Processing + add rule									
Origin	Account Name	Code	Code Name	Src Match	Src Replace	Dst Match	Dst Replace	Set Group	Order
Orig	Any			^38050.*		^...\$	1#1	Office Location	1

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

To add a route press a respective "add routing preset" and enter all required information in next fields:

- **Account name** – client's account that should be used in current routing rule;
- **Code** – specify a code of destination here (use * as wildcard);
- **Code Name** – or select a destination name in this field if applicable;
- **Deny** – enable this to deny current route selection;
- **Expires, min** – set a duration in minutes, for which the block should be active (leave blank to block forever).

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

- **Origin** – specifies, when current translation rule will be applied;
- **ORIG** – for calls originated from a client;
- **TERM** – for calls terminated to a client;
- **DR** – on Dynamic Routing, before sending calls to a terminator;
- **Account name** – select a respective account here;
- **Code** – specify a code of destination here (use * as wildcard);
- **Code Name** – or select a destination name in this field if applicable;
- **Src Match** – 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;
- **Src Replace** – put a resulting action in this field, that will be performed, if translation process will take place;
- **Dst Match** – 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;
- **Dst Replace** – put a resulting action in this field, that will be performed, if translation process will take place;
- **Set Group** – allows you to put matched calls into specified Origination Routing Group;
- **Order** – 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.



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**.

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 press *"Add Note"*, enter the message and press *"OK"* button.

Rate Tables

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

Screenshot: Rate Tables section main window

The screenshot shows a web application interface for managing rate tables. At the top, there are navigation buttons for 'List Items' and 'Create New', along with a search bar. Below the navigation is a table with the following columns: ID, Name, Code deck, Reseller, Currency, and Usage. The table contains 20 rows of data, each representing a rate table configuration. The 'Usage' column shows the number of times each rate table has been used, and each row has a red 'X' icon in the final column, likely indicating a delete or edit action.

ID	Name	Code deck	Reseller	Currency	Usage	
174	AAAAAATESTsdasdaSSS	TOIVO TEST	alexcd	GBP	0	X
117	Collina_generated	12345672	Company Name1	USD	0	X
115	CollinaNet_orig	DEFAULT	Company Name1	USD	2	X
116	CollinaNet_orig	megatest	Testing_reseller1	USD	2	X
58	custom_orig_RATE	DEFAULT	Company Name1	USD	13	X
59	custom_term_RATE	—	Company Name1	USD	51	X
48	dexter_test	34234scvxc	Company Name1	USD	0	X
41	dvg43T3ff	DEFAULT	Company Name1	USD	0	X
43	Estonian all	DEFAULT	Company Name1	USD	1	X
29	ewqewqewqe	uhuhuh	Company Name1	USD	0	X
31	ewwdwdwwwdwd	uhuhuh	Company Name1	USD	0	X
111	fiore_1	symp8eyue	Testing_reseller1	BUK	0	X
114	fiore_11	BLABLABLA	fiore_11	BUK	0	X
146	For MNP test	DEFAULT	Company Name1	USD	2	X
47	fwdfdfdfdf	34234scvxc	Company Name1	USD	0	X
84	generator_test1	generator_test	Company Name1	USD	1	X
85	generator_test2	generator_test	Company Name1	USD	1	X
152	jera_teles_orig	DEFAULT	Company Name1	USD	1	X
109	KUB	DEFAULT	Company Name1	USD	0	X
153	! missing	DEFAULT	Company Name1	USD	0	X

To add new rate table, press “Create New” button, define name, reseller, currency of the rate table, code deck that will be tied to this rate table, tax settings and value and description. 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.

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

The rate management is executed with next five tabs:

- **Rates** – rates configuration;
- **Simulate** – call simulation tool;
- **Import** – rates importing from csv or xls files;
- **Export** – rates exporting to csv or xls files;
- **Parameters** – here you can change some parameters that you've specified during rate table creation.

Rates tab description

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

Screenshot: Adding new rates

The screenshot shows the 'Rates' tab interface. At the top, there are tabs for 'Rates', 'Extra', 'Simulate', 'Import', and 'Export', along with a 'Parameters' button. Below the tabs, there are filters for 'All', 'current/future fo', and a date '2012-06-11 08:00:15'. A search bar is also present. The main area displays a table with 10 rows, showing columns for Code, Code Name, Rate, Rate changes, Effective Date, End Date, Extra Fields, and a green plus button. The table contains data for various regions like North America, Canada-Manitoba, and Canada-British Columbia (Victoria). At the bottom, there are buttons for 'Confirm', 'OK', 'Cancel', and 'Apply'.

Code	Code Name	Rate	Rate changes	Effective Date	End Date	Extra Fields	
1	North America	0.0000		2012-02-09 19:00:00-03		1 / 1 / 0 / test	+
1204	Canada-Manitoba	0.300023		2012-01-29 19:00:00-03		1 / 1 / 0 / roptanov	+
1226	canada-1226	0.3000		2012-01-29 19:00:00-03		1 / 1 / 0 / roptanov	+
1250	Canada-British Columbia (Victoria)	0.3000		2012-01-29 19:00:00-03		1 / 1 / 0 / roptanov	+
1268	Antigua	0.0931		2008-10-26 19:00:00-03		1 / 1 / 0 / all time	+
1289	Canada-Ontario (Edmonton)	0.3000		2012-01-29 19:00:00-03		1 / 1 / 0 / roptanov	+
1306	Canada-Saskatchewan	0.3000		2012-01-29 19:00:00-03		1 / 1 / 0 / roptanov	+
1403	Canada-Alberta (Calgary)	0.3000		2012-01-29 19:00:00-03		1 / 1 / 0 / roptanov	+
1416	Canada-Ontario (416)	0.3000		2012-01-29 19:00:00-03		1 / 1 / 0 / roptanov	+
1418	Canada-Quebec	0.3000		2012-01-29 19:00:00-03		1 / 1 / 0 / roptanov	+

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

- **Code** – a destination code;
- **Code Name** – name of code group (available if code deck is attached);
- **Rate** – price per 1 minute of call;
- **Rate Changes** – a field that shows how current rate differs from previously effective one;
- **Setup Fee** – setup fee (charged when call duration is longer then 0 seconds);
- **Effective From** – rate start date (newest available rate for particular destination);
- **End Date** – rate end date;
- **Extra fields** – additional parameters are stored under this tab:
 - **Min Time** – minimal time of call that will be tarifficated. For example, if total call time was 20 seconds, and *Min Time* is 30, then client will pay for 30 seconds of call;
 - **Interval** – tariffication interval. This parameter is used, when *Min Time* time expires;
 - **Grace Time** – time interval, below which calls are not tarifficated;
 - **Profile** – which time profile will be used for 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. 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 seconds, then total call cost will be 0,8 currency units. If

$$0,3 + \frac{1}{60} \cdot \text{quantity of call seconds}$$

call duration was more than 30 seconds, then total call 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):

- **Rate** – 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;
- **Setup Fee** – 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;
- **Grace T.** - change *grace time* value. Available options: preserve, set to;
- **Min. Time** – change *minimal time* value. Available options: preserve, set to;
- **Interval** - change *tarification interval* value. Available options: preserve, set to;
- **Effective From** – change *rate start date* value. Available options: preserve, set to;
- **End Date** – change *rate end date* value. Available options: preserve, set to;
- **Profile** – 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.

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.

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 a web interface for simulating calls. At the top, there are navigation tabs: Rates, Extra, Simulate (active), Import, Export, and Parameters. Below the tabs, there are input fields for Date (2012-06-11 08:09:51-0300), Number (38050), and Duration (45 sec). A Process button is located to the right of the Duration field. Below the input fields is a table with the following data:

	Code	Call Cost	Rate	Billed Time
3		0.27225 USD	0.3630 USD	45 sec

Description of analyze parameters is following:

- *Date* field specifies the call date;
- *Number* – specify number for simulation;
- *Duration* field specifies call duration in seconds;

After specifying all necessary parameters, press “Process” button and wait for query results.

Import

Allows rates importing from Microsoft Excel *.CSV or *.XLS files. Whole import process can be logically divided in three steps.

Step 1: Open Import tab and select a file to import on your HDD. Click “Process>>” button.

Step 2: 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.

Step 3: Third step 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:

- **On duplicate rates** – decide what to do if a duplicate is found:
 - **Update with latest value** – if multiple duplicates were found, the last value is stored;
 - **Skip duplicate rows** – if there are multiple duplicates, only first value will be stored;
 - **Alert me about duplicates** – if duplicate is found, VCS will alert you about their presence;
- **Deck update mode** – decide how you want a code deck to be updated:
 - **Do not import anything** – leave selected code deck unchanged;
 - **Import only not existing codes** – code deck will be updated with codes and their names, if it doesn't currently have this information;
 - **Import all codes (overwrite existing)** – code deck will be updated and codes will be updated with code names taken from file with overwriting of existent code names;
 - **Import all codes (purge code deck first)** – code deck is fully cleared and then all codes and code names are imported from file;
- **Code Deck** – 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 *code names* in addition to *codes*);
- **On errors** – decide, what system should do if file contains an error (data inconsistency, incorrect symbols etc.):
 - **Import correct rows and show all found errors** – import error-free rows and display the list of errors, if any;
 - **If errors are found, abort import and show all errors** – if any error is found, stop import and display a list of errors;
- **Enable confirm mode** – 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

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”.

All what was described above is illustrated on screenshot:

Screenshot: Rates importing process

» Rate Tables / Shared rate table: Reseller 1 Shared rate table / Importing rates

Parameters | Code deck: **DEFAULT** | Currency: USD | Postcharge: 5.00% | Rates | Mass Edit | Simulate | Copy | Import | Export

Step 1: select file for import

Select CSV file to import: D:\Work\pricelist.csv

Fields delimiter: autodetect

Step 1

» Rate Tables / Shared rate table: Reseller 1 Shared rate table / Importing rates

Parameters | Code deck: **DEFAULT** | Currency: USD | Postcharge: 5.00% | Rates | Mass Edit | Simulate | Copy | Import | Export

Step 2: check rows and select columns

Showing first few rows from **4517**.

Code	Rate	Effective Date	Skip
7	0.06	2008-02-27	<input type="checkbox"/>
20	0.093	2008-02-27	<input type="checkbox"/>
27	0.045	2008-02-27	<input type="checkbox"/>
30	0.0126	2008-02-27	<input type="checkbox"/>
31	0.0094	2008-02-27	<input type="checkbox"/>
32	0.0132	2008-02-27	<input type="checkbox"/>
33	0.0106	2008-02-27	<input type="checkbox"/>
34	0.0099	2008-02-27	<input type="checkbox"/>
36	0.0142	2008-02-27	<input type="checkbox"/>
39	0.0105	2008-02-27	<input type="checkbox"/>
40	0.019	2008-02-27	<input type="checkbox"/>
41	0.0129	2008-02-27	<input type="checkbox"/>
43	0.0137	2008-02-27	<input type="checkbox"/>
44	0.0082	2008-02-27	<input type="checkbox"/>
45	0.0097	2008-02-27	<input type="checkbox"/>
46	0.011	2008-02-27	<input type="checkbox"/>

Step 2

» Rate Tables / Shared rate table: Reseller 1 Shared rate table / Importing rates

Parameters | Code deck: **DEFAULT** | Currency: USD | Postcharge: 5.00% | Rates | Mass Edit | Simulate | Copy | Import | Export

Step 3: enter default values

End Date:

Profile: Day

Min Time:

Interval:

Grace Time:

Setup Fee:

S/M:

Import process

On duplicates: Skip duplicate rows

You have selected file with **code** identifier for each row.

Importer will take each row from file, recognize if it is a single code (e.g. "49"), range of codes (e.g. "38066-38069") or list of codes (e.g. "38067,38069") and create corresponding code groups for each code. Then insert rate to the table.

Step 3

Export

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 a software window titled "Rates" with a menu bar containing "Rates", "Extra", "Simulate", "Import", "Export", and "Parameters". Below the menu bar, there are several filters: a dropdown menu set to "All", a date range "current/future fo" with a calendar icon, and a timestamp "2012-06-11 08:11:30" with a calendar icon. A search bar with a magnifying glass icon and a "Search" button is also present.

The main area is divided into two sections. The left section is titled "Step 1: specify date and format options" and contains the following fields:

- Last export date: 2012-03-27 06:41:26-03 (with a calendar icon)
- Date format: (empty text box)
- Code Deck: DEFAULT (dropdown menu)
- Codes Output: ranges list (dropdown menu)
- Data format: Excel XLS (dropdown menu)
- Output Encoding: Windows-1251 (dropdown menu)
- with headers row
- codes from code deck

Below these fields are two expandable sections: "Header text >>" and "Footer text >>".

The right section is a list of columns to export, each with a dropdown menu:

- Column #1: Code
- Column #2: Code Name
- Column #3: Effective Date
- Column #4: Rate
- Column #5: Min Time
- Column #6: Interval
- Column #7: Grace Time
- Column #8: Setup Fee
- Column #9: Profile
- Column #10: End Date
- Column #11: Rate changes
- Column #12: Notes

At the bottom right of the window are two buttons: "Process >>" and "Cancel".

Additional options for your export are following:


- **Last export date** – parameter that affects "Rate changes" field (depending on it exported rates will be marked as *new*, *changed*, *deleted* etc);
- **Date format** – 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;
- **Code Deck** – select a code deck here to rewrite code names in export file if needed;
- **Codes Output** – specify how codes should be displayed. There are few options:
- **Separate rows** – each code is placed into single row;
- **Delimited list** – codes are grouped by code name in a row, for example: 5510,5511,5512;
- **Ranges list** – codes are grouped by code name into ranges plus delimiter, for example: 5510-5512, 5515;
- **Data Format** – specify output file format, XLS or CSV;
- **Output Encoding** – select an encoding for exported file, UTF-8 or WINDOWS-1251;
- **With headers row** – include column names into the file;
- **Codes from code deck** – allows to additionally filter the export, by selecting only codes which are present in specified *Code Deck*;
- **Fields Delimiter** – set delimiter for fields if you've chosen CSV;
- **Header text / Footer text** – allows you to additionally put some text into exported file as header and footer respectively;
- **Column #** – 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.

Parameters

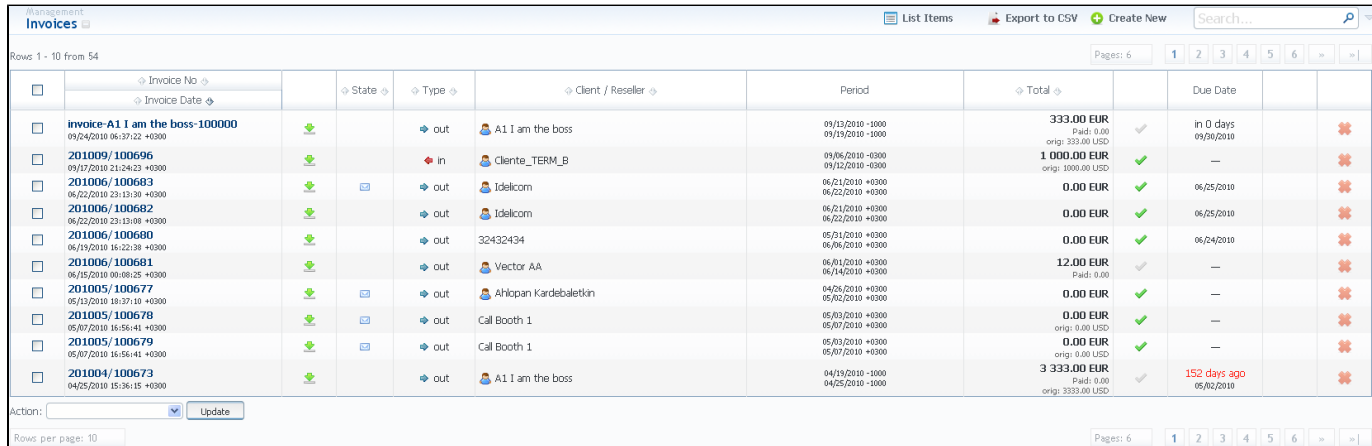
This tab allows you to correct or change any settings that you entered when you created current Rate Table, such as it's *Name*, *Reseller*, *Currency* etc.

Invoices

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 to CSV" you can download currently stored invoices list as CSV file.




Main window is presented as list:

Screenshot: Invoices section main window



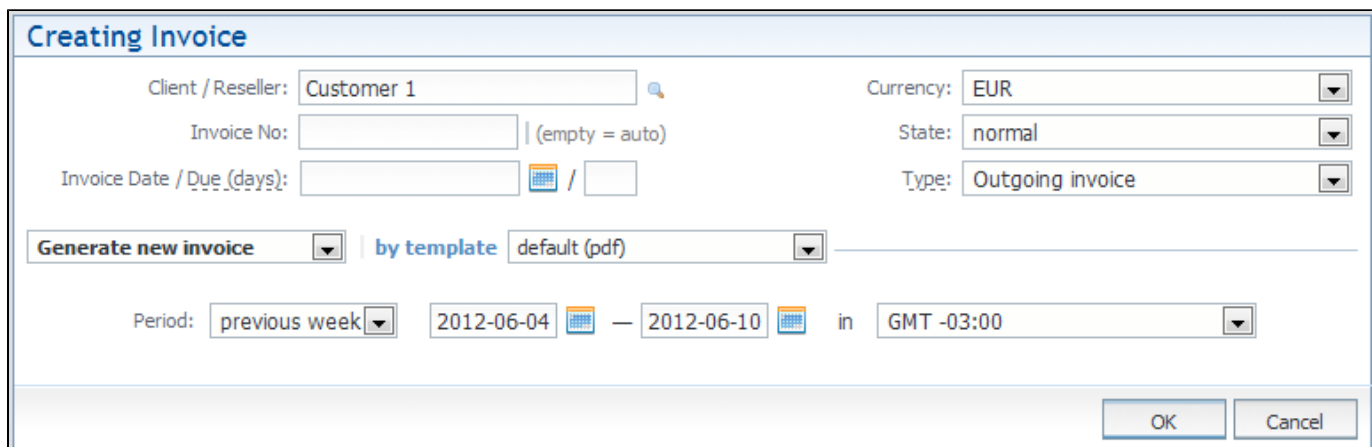
Invoice No	Invoice Date	State	Type	Client / Reseller	Period	Total	Due Date
invoice-A1 I am the boss-100000 09/24/2010 06:37:22 +0300			out	A1 I am the boss	09/23/2010 -1000 09/29/2010 -1000	333.00 EUR Paid: 0.00 orig: 333.00 USD	in 0 days 09/30/2010
201009/100696 09/27/2010 23:04:23 +0300			in	Clente_TERM_B	09/06/2010 -0300 09/22/2010 -0300	1 000.00 EUR orig: 1000.00 USD	—
201006/100683 06/22/2010 23:13:30 +0300			out	Idelcom	06/21/2010 +0300 06/22/2010 +0300	0.00 EUR	06/25/2010
201006/100682 06/22/2010 23:13:09 +0300			out	Idelcom	06/21/2010 +0300 06/22/2010 +0300	0.00 EUR	06/25/2010
201006/100680 06/19/2010 16:22:29 +0300			out	32432434	06/21/2010 +0300 06/06/2010 +0300	0.00 EUR	06/24/2010
201006/100681 06/15/2010 00:08:25 +0300			out	Vector AA	06/01/2010 +0300 06/14/2010 +0300	12.00 EUR Paid: 0.00	—
201005/100677 06/13/2010 18:37:10 +0300			out	Ahlopan Kardebaletin	04/26/2010 +0300 05/02/2010 +0300	0.00 EUR	—
201005/100678 05/07/2010 16:56:41 +0300			out	Call Booth 1	05/03/2010 +0300 05/07/2010 +0300	0.00 EUR orig: 0.00 USD	—
201005/100679 05/07/2010 16:56:41 +0300			out	Call Booth 1	05/03/2010 +0300 05/07/2010 +0300	0.00 EUR orig: 0.00 USD	—
201004/100673 04/25/2010 15:36:15 +0300			out	A1 I am the boss	04/23/2010 -1000 04/25/2010 -1000	3 333.00 EUR Paid: 0.00 orig: 3333.00 USD	152 days ago 05/02/2010

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

- **Invoice No** – number of invoice;
- **Invoice Date** – invoice creation date;
- **State** – respective invoice state (*to verify* state is defined by  icon, and tells you that this invoice is awaiting to be checked before it will be sent to client; *to send* state is defined by  icon, and this means that invoice is in sending queue; *to normal* invoice state is not defined by any icon);
- **Type** – invoice type (incoming or outgoing);
- **Client/Reseller** – name of client or reseller with corresponding icon;
- **Period** – invoice period;
- **Total** – total invoice sum;
-  icon tells you that respective invoice was paid in full. If the invoice is not fully paid, this icon will be grey;
- **Due Date** – shows due date for specific invoice;
- **Action** list and "Update" button allow you to change the selected invoice state (when you change it to *send* state the invoice will be queued to be sent to Billing e-mail of respective client; after the sending will be completed, the invoice state will be set to *normal*).

Invoices are created through "Create New" button. When you press it, a pop-up window will show up:

Screenshot: Create Invoice window



Creating Invoice

Client / Reseller: Currency:

Invoice No: | (empty = auto) State:

Invoice Date / Due (days): / Type:

| by template

Period: 2012-06-04 — 2012-06-10 in

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!

Transactions

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	Transaction Date	Client / Reseller	Amount		
522954	General	06/08/2012 07:36:30 -0300	selenium_test4 activation	0.00 EUR		
522950	General	06/08/2012 06:48:32 -0300	test1 deactivation	-8.05 EUR		
522949	General	06/08/2012 06:46:20 -0300	test1 activation	0.00 EUR		
522948	General	06/08/2012 06:45:52 -0300	test1 activation	0.00 EUR		
522947	General	06/08/2012 06:45:37 -0300	test1 deactivation	0.00 EUR		
522946	General	06/08/2012 06:45:27 -0300	test1 deactivation	8.05 EUR		
522943	General	06/08/2012 06:43:46 -0300	test1 deactivation	16 131.51 EUR		
522941	General	06/08/2012 06:35:59 -0300	Test_Tax activation	0.00 BGN		
522945	Calls	06/07/2012 18:00:00 -0300	somecli	0.00 EUR		system
522944	Calls	06/07/2012 18:00:00 -0300	test1	-94.39 EUR		system

Payments list columns have the following meaning:

- **ID** – a payment thorough id number;
- **Payment Account / Transaction Date** – displays respective payment account and a date, related to a performed payment;
- **Client / Reseller** – displays the name of client or reseller that was engaged in payment operation (clients are marked by green icon, resellers by orange one);
- **Amount** – the respective payment operation sum.

To add a payment press "Create New" button. In new window specify such parameters as: payment date, select a client or reseller, payment account, enter sum and press "OK" button.

Tip: For incoming payment select "payment" operation type, for outgoing charge – select "charge".

Tip: If you uncheck "Approved" box when adding a payment, that payment will have to pass additional approval check by billing operator.

If you press "Import" 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 to CSV" 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

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

Client	Payment Account	Date	Document	Start Balance	Debit	Credit	End Balance
testClientDon'tDelete				-439 048 483.42 USD	2 137 915.63 USD	10 422.57 USD	-436 920 990.36 USD
testClientDon'tDelete	Accounts Payable	06/06/2012 00:27:47 -1200	Invoice BRU103272/06	-439 048 483.42 USD		681.87 USD	-439 049 165.29 USD
testClientDon'tDelete	Accounts Receivable	06/06/2012 19:14:08 -1200	Invoice test roptanov	-439 049 165.29 USD	187 511.49 USD		-438 861 653.80 USD
testClientDon'tDelete	Accounts Receivable	06/06/2012 19:20:57 -1200	Invoice test roptanov2	-438 861 653.80 USD	187 511.49 USD		-438 674 142.31 USD
testClientDon'tDelete	Accounts Receivable	06/06/2012 19:22:13 -1200	Invoice test roptanov3	-438 674 142.31 USD	187 511.49 USD		-438 486 630.82 USD
testClientDon'tDelete	Accounts Receivable	06/06/2012 19:26:00 -1200	Invoice test roptanov4	-438 486 630.82 USD	187 511.49 USD		-438 299 119.33 USD
testClientDon'tDelete	Accounts Receivable	06/06/2012 19:31:41 -1200	Invoice test roptanov5	-438 299 119.33 USD	187 511.49 USD		-438 111 607.84 USD
testClientDon'tDelete	Accounts Receivable	06/06/2012 20:16:01 -1200	Invoice test roptanov6	-438 111 607.84 USD	187 511.49 USD		-437 924 096.35 USD
testClientDon'tDelete	Accounts Receivable	06/06/2012 20:19:19 -1200	Invoice TEST jerasoft 9	-437 924 096.35 USD	187 511.49 USD		-437 736 584.86 USD
testClientDon'tDelete	Accounts Receivable	06/06/2012 20:20:14 -1200	Invoice TEST jerasoft 10	-437 736 584.86 USD	187 511.49 USD		-437 549 073.37 USD
testClientDon'tDelete	Accounts Receivable	06/06/2012 20:21:30 -1200	Invoice TEST jerasoft 10	-437 549 073.37 USD	187 511.49 USD		-437 361 561.88 USD
testClientDon'tDelete	Accounts Receivable	06/06/2012 20:25:30 -1200	Invoice	-437 361 561.88 USD	187 511.49 USD		-437 174 050.39 USD
testClientDon'tDelete	Accounts Receivable	06/06/2012 20:26:55 -1200	Invoice TEST jerasoft 1000	-437 174 050.39 USD	187 511.49 USD		-436 986 538.90 USD
testClientDon'tDelete	Accounts Payable	06/06/2012 21:10:38 -1200	Invoice BRU103273/06	-436 986 538.90 USD		4 870.35 USD	-436 991 409.25 USD
testClientDon'tDelete	Accounts Payable	06/06/2012 21:12:41 -1200	Invoice BRU103274/06	-436 991 409.25 USD		4 870.35 USD	-436 996 279.60 USD
testClientDon'tDelete	Accounts Receivable	06/06/2012 21:29:46 -1200	Invoice BRU103274/06	-436 996 279.60 USD	18 822.31 USD		-436 977 457.29 USD
testClientDon'tDelete	Accounts Receivable	06/06/2012 21:32:22 -1200	Invoice BRU103275/06	-436 977 457.29 USD	18 822.31 USD		-436 958 634.98 USD
testClientDon'tDelete	Accounts Receivable	06/06/2012 21:35:50 -1200	Invoice BRU103275/06	-436 958 634.98 USD	18 822.31 USD		-436 939 812.67 USD
testClientDon'tDelete	Accounts Receivable	06/06/2012 21:38:15 -1200	Invoice BRU103276/06	-436 939 812.67 USD	18 822.31 USD		-436 920 990.36 USD

Query Time: 0.0324 sec

Query: Period: current month | 2012-06-01 | 00:00:00 | 2012-06-11 | 23:59:59 | in GMT -12:00 | Query

Client: testClientDon'tDelete | Mode: Accountant | Currency: USD

Output: Web | Group By #1: | Group By #2: | Show subtotals: |

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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 *Mutual* balance, useful data for postpaid), or *Current* – builds report by received payments and call processing charges (this effectively builds *Current* balance, useful data for prepaid). Press “Query” button when done.

Report fields description:

- **Client** – name of client that current operation is assigned to;
- **Payment Account** – displays respective payment account, where performed payment was assigned;
- **Date** – operation date;
- **Document** – which document an operation corresponds to (invoice 100, for example);
- **Start balance** – start client's balance prior to respective operation;
- **Debit** – operation sum, that has positive income (incoming payment/invoice etc)
- **Credit** – operation sum, that has negative income (outgoing payment/invoice etc)
- **End Balance** – final client's balance after respective operation.



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

Resellers

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	Users	Mode	Clients	ORIG Rates	TERM Rates
1	[Redacted]	0.00 USD	62	Postpaid	2		
5	[Redacted]	0.00 USD		Prepaid	3	ORIG-Premium	
13	[Redacted]	0.00 USD		Postpaid	3	ORIG-Premium	
8	[Redacted]	91.95 USD		Prepaid	0	ORIG-Premium	
14	[Redacted]	0.00 USD		Prepaid	2		TERM-[Redacted]
12	[Redacted]	0.00 USD		Postpaid	4		
11	[Redacted]	0.00 USD		Postpaid	1	ORIG-Premium	
15	[Redacted]	10.00 USD		Prepaid			

To add a company, press “Create New” button, and a window with Reseller’s properties will open (Screenshot down below). Also, there is *Custom Fields* tab, that allows you to add custom fields that can be used in invoices for this Reseller’s customers.

Screenshot: Adding new reseller

General | Custom Fields

System Information

Name: TestAccessCompany
 Parent: ...root...
 Mode: Postpaid
 Allowed Credit: 0.00 EUR

Allowed VoIP Gateways

- Nextone
- Unitel (testing)
- СУПЕРГЕЙТ
- selenium2
- Localhost

Billing Information

ORIG Rates: MagaPhone-origination
 TERM Rates: MagaPhone-termination
 Tax Profile:
 Currency: EUR
 Invoicing Date: Real date
 Invoice Template: default (pdf)
 Invoice No Tpl:
 Invoice Last No: 10028

Dynamic Routing

Routing Plan:
 ORIG Capacity:
 TERM Capacity:

Contact Information

E-mail:
 Postal Address:
 Bank Account:
 Tax ID:
 Reg ID:

Logo

Logo [Обзор...]

Mail Template: Invoice >>
 Mail Template: Payment Reminder Notification >>
 Mail Template: Low Balance Notification >>
 Mail Template: Rates Notificator >>

OK Cancel Apply

- **Reseller / Agent** – select appropriate type;
- **Parent** – select a parent for this reseller;
- **Mode** – you may select whether this reseller will work in postpaid or prepaid mode;
- **Allowed credit** – enter a credit value for your reseller here;
- **Allowed VoIP Gateways** – select respective gateways that are allowed to this reseller;
- **Billing Information:**
 - **ORIG Rates** – origination rates for this Reseller;
 - **TERM Rates** – termination rates for this Reseller;
 - **Tax Profile** – select a tax profile that will be used for this Reseller;
 - **Currency** – select a currency for rates and invoices of this Reseller;
 - **Invoicing Date** – allows you to select how system sets invoicing date:
 - **real date** – sets invoicing date to actual invoicing date;

- **last day** – sets invoicing date to date of last day of invoicing period;
- **Invoice Template** – select default template to be used with this reseller's clients;
- **Invoice No Tpl** – allows to define default format of invoice's name;
- **Invoice Last No** – define last used invoice number here;
- **Dynamic Routing:**
 - **Routing Plan** – select a default routing profile for this reseller's clients;
 - **ORIG Capacity** – origination capacity from this Reseller summed for all clients that belong to him. Leave this field empty for unlimited capacity;
 - **TERM Capacity** – termination capacity to this Reseller summed for all clients that belong to him. Leave this field empty for unlimited capacity;
- **Contact Information:**
 - **E-mail** – company's e-mail;
 - **Postal Address** – company's postal address;
 - **Bank Account** – company's bank account info;
 - **Tax ID** – an ID of tax paying entity;
- **Logo** - here you can add the file with company's logo.

Also, there are 3 different mail templates you can configure for your company. They are:

- **Mail Template: Invoice** – is used when sending invoice to the customer;
- **Mail Template: Payment Notification** – is used when sending payment notification to the customer;
- **Mail Template: Low Balance Notification** – is used when sending low balance notification to the customer;
- **Mail Template: Rates Notificator** – is used when sending rate changes notification to the customer.

To configure any of these templates, click on its name. The templates configuration syntax is following:

- `${settings[company_name]}` – the name of reseller or company;
- `${settings[company_email]}` – the e-mail of reseller or company;
- `${settings[company_payinfo]}` – reseller company bank details;
- `${settings[company_address]}` – post address of reseller or company;
- `${invoice[c_dt]}` – invoice date;
- `${invoice[period_start]}` – invoice period start;
- `${invoice[period_finish]}` – invoice period end;
- `${invoice[c_company]}` – invoiced company name;
- `${invoice[c_address]}` – invoiced company address;
- `${invoice[c_email_billing]}` – invoiced company e-mail;
- `${invoice[total]}` – invoice total sum;
- `${invoice[no]}` – invoice number.

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](#)
- [Payment Gateways](#)

Calling Cards

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

Series Number	Balance	Qty	Reseller	Rate Table	CP	Act. Fee	Maint. Fee
444	5.00 EUR	1 000	Voip Call	Rate Table 22			1.00 each 168 hour(s)
555	5.00 EUR	1 000	OK TEL	Rate Table 23			
1975	50.00 EUR	100	COATEL S.A.	Rate Table 67			
2000	10.00 EUR	10 000	TGA Corporation	Rate Table 42			
9000	5.00 EUR	10	COATEL S.A.	demo			
10001	1 000.00 EUR	1	Rede Sol Express	Rate Table 34			
10101	5.00 EUR	10 000	Vipcarrier	zone1			
60001	5.00 EUR	100	TGA Corporation	zone1			
858885	5.00 EUR	100	Ephraim	Itq			
100011111	5.00 EUR	100	COATEL S.A.	Rate Table 24			
100011112	5.00 EUR	100	COATEL S.A.				

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

Screenshot: Generate card series window

Generating Series

System Information

Series Number:

Balance: EUR

Quantity:

PIN length: digits

Status:

CP Enabled

Billing Settings

Reseller:

Rate Table:

Routing Plan:

Activation Fee: EUR

Maintenance Fee: EUR each hour(s)

Expiration Settings

Expire date:

Expire period: day(s)

Notes

OK Cancel Apply

Enter all required info in fields below:

- **Series Name** – a name that describes current card series;
- **Series Number** – a code of card series. This code will prepend serial number;
- **Balance** – cards balance value within current series;
- **Quantity** – quantity of calling cards within current series;
- **PIN length** – specify a desired PIN-code length for current calling card series (it can not be less than 8 digits);
- **Status** – an initial status of created call cards within series. Can be changed later in card series settings;
- **CP Enabled** – 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;
- **Reseller** – defines what reseller owns current calling card series;
- **Rate table** – what rate table should be used with calling cards within current series;
- **Routing Plan** – select a routing plan for current card series;
- **Activation Fee** – enter activation fee in this field;
- **Maintenance Fee** – enter maintenance fee, that is charged every X hours;

- **Expire date** – current calling cards series will be expired on specified date;
- **Expire period** – when specified number of days pass, starting from activation date, current calling card series will be expired.

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:

- **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

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

The screenshot shows the 'Top-up Cards' section main window. It features a table with columns for Series, Amount, PIN Code, Reseller, and Activated By. The table contains 11 rows of data. The interface includes a search bar, 'List Items', 'Generate new', and 'Mass Edit' buttons. The table is paginated, showing page 2 of 2.

Series — Serial Number	Amount	PIN Code	Reseller	Activated By	Activated on
1006-001284650	23.00 USD	6194 1639	KPN1	—	—
1006-001284649	23.00 USD	6364 5073	KPN1	—	—
1007-004793542	50.00 USD	9665 8786 5465 3428	KPN1	—	—
1007-004793541	50.00 USD	9957 3487 6521 6647	Turtrans LTD	Beta Co	07/05/2010 16:22:28 +0300
1007-004793543	50.00 USD	4841 3173 3502 0031	KPN1	—	—
1007-004793544	50.00 USD	6765 7682 7768 4423	KPN1	—	—
1007-004793545	50.00 USD	9697 7029 9440 1041	KPN1	—	—
1008-009366225	20.00 USD	5248 2612	alexcd	—	—

To create new series, press «Generate New» button and fill the following:

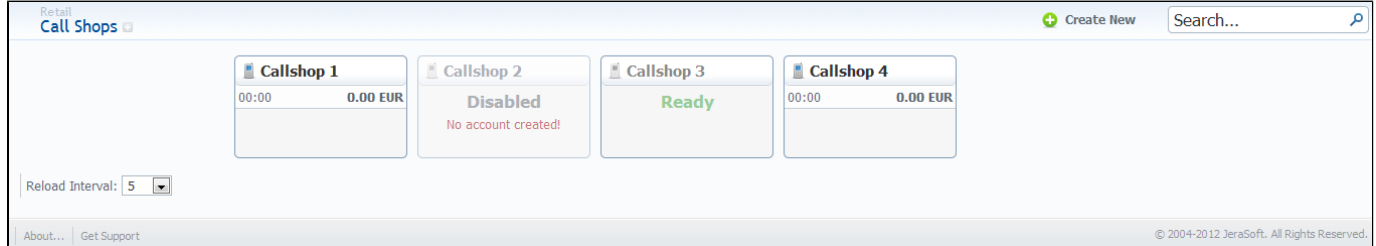
- **Series** – a code identifier of card series. This code will prepend a serial number;
- **Amount** – cards balance value within series;
- **Quantity** – quantity of cards within series;
- **PIN length** – specify a desired PIN-code length for current calling card series (it can not be less than 8 digits);
- **Reseller** – defines what reseller owns current calling card series;
- **Expire date** – current calling cards series will be expired on specified date;
- **Expire period** – when specified number of days pass, starting from activation date, current top-up card series will be expired.

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).

Call Shops


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



To create new call shop, press «Create New» button and fill the following details:

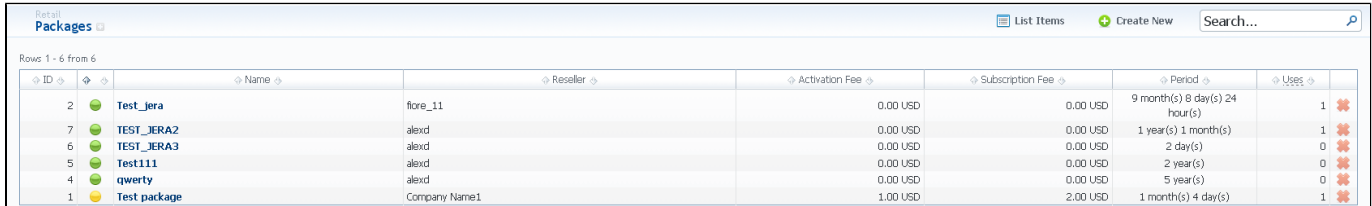
- **Name** – enter name for call shop;
- **Reseller** – select a reseller that will be owner of this call shop;
- **Status** – select a status for this call shop;
- **Mode** – choose either prepaid or postpaid billing model for a call shop;
- **Allowed Credit** – specify credit value here;
- **Rate Table** – choose a rate table this call shop will be using;
- **Tax Profile** – specify a Tax Profile this call shop will be using;
- **Currency** – specify preferred currency;
- **Timezone** – choose preferred timezone;
- **Routing Plan** – select a routing plan here, if you wish to use dynamic routing for this call shop;
- **Capacity** – 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.

Packages

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



The screenshot shows a web application interface for managing packages. At the top, there is a header with the title "Packages" and buttons for "List Items" and "Create New", along with a search bar. Below the header, a table displays a list of packages. The table has columns for ID, Name, Reseller, Activation Fee, Subscription Fee, Period, and Usage. The data is as follows:

ID	Name	Reseller	Activation Fee	Subscription Fee	Period	Usage
2	Test_jera	flore_11	0.00 USD	0.00 USD	9 month(s) 8 day(s) 24 hour(s)	1
7	TEST_JERA2	alexnd	0.00 USD	0.00 USD	1 year(s) 1 month(s)	1
6	TEST_JERA3	alexnd	0.00 USD	0.00 USD	2 day(s)	0
5	Test111	alexnd	0.00 USD	0.00 USD	2 year(s)	0
4	qwerty	alexnd	0.00 USD	0.00 USD	5 year(s)	0
1	Test_package	Company Name1	1.00 USD	2.00 USD	1 month(s) 4 day(s)	1

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

Screenshot: Package properties


Adding Packages

<p>Name: <input type="text"/></p> <p>Reseller: <input type="text" value="Trance Telecom Inc."/> ▼</p> <p>Code Deck: <input type="text"/> ▼</p> <p>Status: <input type="text" value="Active"/> ▼</p> <p>Priority: <input type="text" value="1"/></p>	<p>Period: <input type="text" value="Y"/> <input type="text" value="M"/> <input type="text" value="D"/> <input type="text" value="H"/></p> <p>Activation Fee: <input type="text" value="0.00"/> <input type="text" value="USD"/> ▼</p> <p>Subscription Fee: <input type="text" value="0.00"/> <input type="text" value="USD"/></p> <p><input type="checkbox"/> Include taxes into all fees</p>				
<h4 style="margin: 0;">DID Limits</h4> <p>Number of DID's: <input type="text" value="0"/></p> <p>Allowed DID groups:</p> <div style="border: 1px solid #ccc; padding: 5px;"> <input type="checkbox"/> DID Group 1 </div>	<h4 style="margin: 0;">Defaults</h4> <p>Effective start date: <input type="text"/> </p> <p>Effective end date: <input type="text"/> </p> <p><input type="checkbox"/> Align to Payment Terms</p> <p><input type="checkbox"/> Recalculate to period</p>				
<h4 style="margin: 0;">Volume Limits</h4> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Code: <input type="text"/></td> <td style="width: 25%;">Code Name: <input type="text"/></td> <td style="width: 25%;">Limit (min): <input type="text"/></td> <td style="width: 25%; text-align: right;"><input type="button" value="Add limit"/></td> </tr> </table> <div style="border: 1px solid #ccc; padding: 10px; text-align: center; margin-top: 10px;"> No limits </div>		Code: <input type="text"/>	Code Name: <input type="text"/>	Limit (min): <input type="text"/>	<input type="button" value="Add limit"/>
Code: <input type="text"/>	Code Name: <input type="text"/>	Limit (min): <input type="text"/>	<input type="button" value="Add limit"/>		
<h4 style="margin: 0;">Discounts</h4> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Activation count: <input type="text"/></td> <td style="width: 50%;">Discount: <input type="text"/></td> <td style="text-align: right;"><input type="button" value="Add discount"/></td> </tr> </table> <div style="border: 1px solid #ccc; padding: 10px; text-align: center; margin-top: 10px;"> No discounts </div>		Activation count: <input type="text"/>	Discount: <input type="text"/>	<input type="button" value="Add discount"/>	
Activation count: <input type="text"/>	Discount: <input type="text"/>	<input type="button" value="Add discount"/>			
<input type="button" value="OK"/> <input type="button" value="Cancel"/> <input type="button" value="Apply"/>					

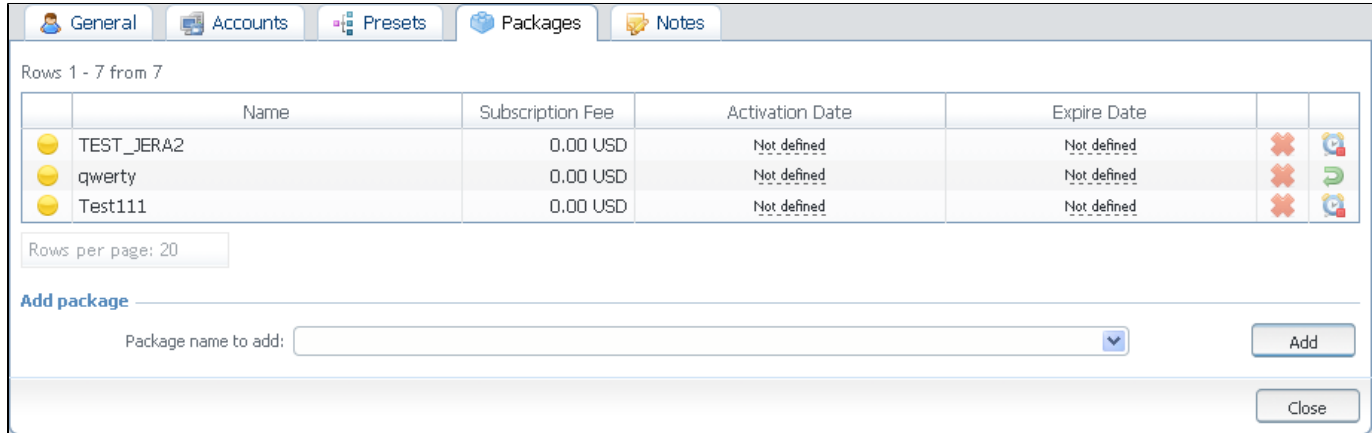
- **Name** – name of your package;
- **Reseller** – specify an owner for this package;
- **Code Deck** – specify Code Deck if you plan to create *limits* by using Code Names;
- **Status** – current status of package (*Active, Disabled, Archive*);
- **Period** – specify a period for current package if it's renewable;
- **Activation Fee** – a fee that will be charged upon package activation;
- **Subscription Fee** – a fee that will be charged upon package renewal;
- **Include taxes into all fees**– if enabled, taxes are included into package prices, if disabled – taxes will be calculated with respective Tax Profile of customer;
- **Priority** – if there are multiple packages that satisfy a call, then a package with highest priority will be used;
- **DID Limits**– specify how many DID's and from which group can be assigned to a customer with this package:

- **Number of DID's** – how many DID's can be assigned at the same time;
- **Allowed DID groups**– from which group DID's are picked for customer;
- **Defaults** – default settings for the package, that are applied when package is assigned to client:
 - **Effective Start Date** – sets a start date when special package promotions are effective (for example, discounts);
 - **Effective End Date**– sets an end date, when special package promotions are no longer effective;
 - **Align to Payment Terms**– allows system to align period of package to customer's payment Terms, evening Package billing with actual invoicing for voice traffic;
 - **Recalculate to Period**– allows even recalculation of days up to Payment Terms period, if Package was activated somewhere in the middle.
- **Volume Limits** – here you can create promotional minute packets that will be included into package:
 - **Code** – specify a code;
 - **Code name** – specify a code name from selected Code Deck;
 - **Limit (min)** – enter amount of free minutes that will be used in current promotion for specified code or code name.
- **Discounts** – a promotional discount on package “*Subscription Fee*”, applied after given number of package reactivations:
 - **Activation Count** – specify which activation will trigger the discount;
 - **Discount** – how much would be taken off of package “*Subscription Fee*”. Note, the value is in currency points, not in percents.










Packages tab

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*







Rows 1 - 7 from 7

	Name	Subscription Fee	Activation Date	Expire Date		
	TEST_JERA2	0.00 USD	Not defined	Not defined		
	qwerty	0.00 USD	Not defined	Not defined		
	Test111	0.00 USD	Not defined	Not defined		

Rows per page: 20

Add package

Package name to add: 

- **Name** – name of assigned package;
- **Subscription Fee** – the package price;
- **Activation Date** – a date, when package was activated;
- **Expire date** – a date, when package will be stopped, if there will be no prolongations (due to client's balance, for example);
-  – click this icon to delete the package;
-  – 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 icons, until *Packages Manager* starts;
- **Add package** – 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.

DID Management

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

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*;
2. Go back to *Retail – DID Management* and create one or more Operators (DID providers);
3. Press “*Add DID*” 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 “*DID's Import*”;
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.

Payment Gateways

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* and *Ukash*.

To configure them, first thing you need to do is select a Reseller, by using «*Settings for*» drop-down menu. 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:

- **E-Mail** – Paypal e-mail that should be used;
- **Payment Account** – select which payment account should be used for payment from respective payment gateway;
- **Gateway Currency** – currency of the gateway that will be used to perform payment;
- **System Currency** – select a currency from available in VCS to be used during payment. It should match *Gateway Currency*;
- **Description** – user will see this text as tooltip for current payment method;
- **Amount Limits** – 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.

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.

Summary Report

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 section main window

The screenshot shows the 'Summary Report' window with a data table and search filters. The table is organized into sections: 'Type: origination' and 'Type: termination'. The search filters include 'Period', 'Client', 'Code Name', 'Code', 'Currency', and 'Group By' fields.

Client	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
Type: origination															
test_cash_flow_client	13.6667 USD	10.0000	1.37	1.37	1	1	1	0	0	100.00 %	100.00 %	1.37	1.37	00:00	00:00
Test z	110.4400 USD	0.1718	15 849.33	642.72	15 822	15 656	15 821	0	1	100.00 %	98.95 %	1.00	1.01	00:00	00:00
Total:	124.11 USD	0.1927	15 850.70	644.08	15 823	15 657	15 822	0	1	99.99 %	98.95 %	1.00	1.01	00:00	00:00
Type: termination															
test_cash_flow_client	-158 295.6667 USD	10.0000	15 829.57	15 829.57	15 812	15 646	15 812	0	0	100.00 %	98.95 %	1.00	1.01	00:00	00:00

Real Period: 02/02/2011 18:00:00 +0200 — 08/18/2011 01:59:59 +0200
Query Time: 0.2461 sec

Query filters: Period: current year, 2011-01-01 to 2011-12-31, 00:00:00 to 23:59:59, in GMT +02:00, all time. Client: [empty], Code Name: [empty], Code: [empty], Under Owner: [empty], Code Deck: Use pre-assigned code decks, Currency: USD. Output: Web. Group By #1: Client, Group By #2: [empty], Group By #3: [empty], Group By #4: [empty], Group By #5: [empty], Group By #6: [empty].

To create a report, specify a period, select a client (or a calling card) and any/all of his accounts, phone prefix and its group, call route, currency, VoIP-host and press "Query" button. Report can be formed either as HTML-document, XLS or CSV file.

Tip 1: 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 2: 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 3: System displays the real period of statistics below created report.

Tip 4: By clicking on a triangle in top left 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*.

Report data columns are following:

- **Date** – calls date (displayed only when defining statistics by date and/or hours);
- **Country** – name of the country which corresponds to call prefix group;
- **Destination** – name of the prefix group which corresponds to current call;
- **Total Cost** – total call cost;
- **Time, min** – call duration in minutes;
 - **Total** – total call duration;
 - **Billed** – billed call duration;
- **Calls** – processed calls quantity;
 - **Total** – total calls quantity;
 - **Not Zero** – quantity of calls, that have duration equal to or more than 1 second;
 - **Success** - quantity of calls, that have duration equal to or more than 1 second and successful end code;
 - **Busy** - "busy" calls quantity;
- **ASR** – average successful rate (successful calls percent):
 - **Std** – number of calls with "success" status divided by total number of calls minus all calls with "no channel available" status;
 - **Cur** – number of calls with duration > 0 divided by total number of calls;
- **ACD, min** – average call duration:
 - **Std** - sum of all calls durations divided by number of calls with "success" status;
 - **Cur** – sum of all calls durations divided by number of calls with duration > 0.
- **PDD** – post dial delay: time in seconds between setup time and return of signaling by termination provider;
- **SCD** – session connect delay: time in seconds between setup and connect time of the call.

Orig-Term Report

This report allows you to trace all call routes from customer to provider with indication of respective revenues (Screenshot down below).

To create a report you need to specify a period, and also specify the report group parameters in "Group by #" fields. 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. Otherwise, the report will be created for all available data.

Screenshot: Orig-Term Report section main window

Orig		Term		Profit		Total	ASR		ACD, min		Calls *								
Orig Code Name	Term Code Name	Billed Time	Cost	Avg Rate	Billed Time	Cost	Avg Rate	EUR	%	Time, min	Std	Cur	Std	Cur	Total	Not Zero	Success	Busy	No Channel
Canada-Ontario (416)	Canada-Ontario (416)	38.30	52.1756	1.3623	38.30	-36.1800	0.9446	15.9956	30.66	38.30	61.90 %	36.00 %	2.95	4.26	25	9	13	0	4
Canada-Ontario (647)	Canada-Ontario (647)	208.57	227.6458	1.0915	208.57	-185.6100	0.8899	42.0358	18.47	208.57	22.73 %	8.92 %	5.96	10.98	213	19	35	0	59
Canada-Ontario (905)	Canada-Ontario (905)	19.08	20.0070	1.0484	19.08	-16.3100	0.8547	3.6970	18.48	19.08	79.31 %	41.94 %	0.83	1.47	31	13	23	2	2
Canada-Ontario (London)	Canada-Ontario (London)	0.93	1.2656	1.3560	0.93	-0.8400	0.9000	0.4256	33.63	0.93	100.00 %	100.00 %	0.47	0.47	2	2	2	0	0
Canada-Ontario (North Bay)	Canada-Ontario (North Bay)	37.77	41.6076	1.1017	37.77	-33.9200	0.8981	7.6876	18.48	37.77	20.00 %	10.71 %	9.44	12.59	28	3	4	0	8
Canada-Ottawa	Canada-Ottawa	368.77	403.4375	1.0940	368.77	-328.9500	0.8920	74.4875	18.46	368.77	16.45 %	7.99 %	7.23	10.54	438	35	51	2	128
Total:		673.42	746.1391	1.1080	673.42	-601.8100	-0.8937	144.3291	19.34	673.42	17.37 %	10.99 %	5.26	8.31	737	81	128	4	201

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:

- **Orig** – origination info:
 - **Billed Time** – billed call time,
 - **Cost** – call cost,
 - **Avg. Rate** – average call rate;
- **Term** – termination info:
 - **Billed Time** – billed call time,
 - **Cost** – call cost,
 - **Avg. Rate** – average call rate;
- **Profit** – the revenue:
 - **EUR** – revenue in EUR (in fact, any system currency can be displayed here. In this example system currency = EUR);
 - **%** - revenue in percent value;
- **Total Time, min** – total calls time;
- **ASR** – average successful rate (successful calls percentage):
 - **Std** – number of calls with status "success" divided by total number of calls minus all calls with "no channel available" status;
 - **Cur** – number of calls with duration > 0 divided by total number of calls;
- **ACD, min** – average call duration:
 - **Std** - sum of all calls durations divided by number of calls with status "success";
 - **Cur** – sum of all calls durations divided by number of calls with duration > 0;
- **Calls** – quantity of calls in database:
 - **Total** – total calls quantity;
 - **Not Zero** – quantity of calls, that have duration equal to or more than 1 second;
 - **Success** - quantity of calls, that have duration equal to or more than 1 second and successful end code;
 - **Busy** - "busy" calls quantity;
 - **No Channel** – no circuit/channel available.

Profit Report

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.

Other than that, Profit Report is very similar to *Orig-Term Report*. Therefore, description of basic report fields is following:

- **Amount** – origination info resembling the income:
 - **Cost** – call cost,
 - **Billed Time** – billed call time,
 - **Avg. Rate** – average call rate;
- **Expense** – termination info resembling the expense:
 - **Cost** – call cost,
 - **Billed Time** – billed call time,
- **Avg. Rate** – average call rate;
- **Profit** – the revenue:
 - **EUR** – revenue in EUR (in fact, any currency can be displayed here);
 - **%** - revenue in percent value;
- **Total Time, min** – total calls time;
- **ASR** – average successful rate (successful calls percentage):
 - **Std** – number of calls with status "success" divided by total number of calls minus all calls with "no channel available" status;
 - **Cur** – number of calls with duration > 0 divided by total number of calls;
- **ACD, min** – average call duration:
 - **Std** - sum of all calls durations divided by number of calls with status "success";
 - **Cur** – sum of all calls durations divided by number of calls with duration > 0;
- **Calls** – quantity of calls in database:
 - **Total** – total calls quantity;
 - **Not Zero** – quantity of calls, that have duration equal to or more than 1 second;
 - **Success** - quantity of calls, that have duration equal to or more than 1 second and successful end code;
 - **Busy** - "busy" calls quantity;
 - **No Channel** – no circuit/channel available.

LCR Lists

This section's purpose is to generate target-lists of actual used traffic for specified period. The main window of this section is displayed on Screenshot:

Screenshot: LCR Lists section main window

The screenshot displays the 'LCR Lists' section. At the top, there is a table with columns: Code Name, Code, Total Time, min, and four columns for routes (# 1 Route, # 2 Route, # 3 Route, # 4 Route). Each route column contains sub-headers: Time, min; Rate, EUR; ASR, %; and ACD, min. The data rows are for Hungary with codes 3672, 3672737, 3672785, and 3672787. Below the table, there is a 'Query' section with various filters: Period (Custom, 2008-05-01 00:00:00 to 2008-05-15 23:59:59), Code (3672*), Order by (time), Under Reseller, Client Group, Currency (EUR), Output (Web), Code Deck (A_Z), Group by (code), and Routes limit. There are also checkboxes for 'Show terminator names' and 'Show total calls'. A 'Query' button is present. The bottom right corner shows 'Query Time: 0.2332 sec'.

Code Name	Code	Total Time, min		# 1 Route	# 2 Route	# 3 Route	# 4 Route
Hungary	3672	18321.58	Time, min : Rate, EUR : ASR, % : ACD, min :	18282.8 1.9918 30.17 1.17	38.78 2.2257 6.76 1.94		
Hungary	3672737	1.05	Time, min : Rate, EUR : ASR, % : ACD, min :	1.05 2.3429 50 1.05			
Hungary	3672785	30.97	Time, min : Rate, EUR : ASR, % : ACD, min :	17.35 4.0000 40 4.34	7.93 2.4403 40 3.97	5.68 2.5780 33.33 5.68	
Hungary	3672787	46.47	Time, min : Rate, EUR : ASR, % : ACD, min :	20.03 2.3391 33.33 2.86	13.42 2.4410 50 1.92	7.45 4.0000 52.63 0.75	5.57 2.5760 61.54 0.7

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

- **Period** – specify a period for report;
- **Code Name** – specify code name of desired destination here;
- **Code** - specify code of desired destination here;
- **Order By** – how to order found data, by rate or time;
- **Under Reseller** – specify reseller whose information should be displayed;
- **Client Group** – select client group here;
- **Currency** – specify currency for report;
- **Output** – list output format (HTML-document, Excel csv or xls file);
- **Code Deck** – select a code deck that should be used to pull names for *Code Name* field;
- **Group By** – select grouping option, by code or code name;
- **Routes Limit** – limit displayed number of routes by entering a number here;
- **Show terminator names** – shows terminator names in report;
- **Show total calls** – 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.


CDRs List

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 section main window

The screenshot shows the 'CDRs List' search interface. At the top, there's a message: 'Please select parameters for report'. Below that is a 'Query' section with various filters. The 'Period' is set to 'today' with a date range of '2010-10-01' to '2010-10-01' and a time range of '00:00:00' to '23:59:59' in 'GMT +03:00'. There are several dropdown menus for 'Client', 'Under Reseller', 'VoIP Gateway', 'Result / Code', 'Dst Number', 'Src Number', 'Code Name', 'Code Deck', 'Group', 'Cost', 'Call ID', 'Status', 'Code', 'Currency', 'Type', 'Duration', 'Interval', and 'CDR ID'. There are also checkboxes for 'not identified clients' and 'not identified destinations'. An 'Output' dropdown is set to 'Web'. On the right, a 'Show Fields' list is visible, showing a selection of fields to be included in the report. A note at the bottom states: 'If you have problems with network timeout errors, you can use delayed output type - after generation of report link to CDRs file will be sent to your e-mail.'

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.

 **Tip:** Fields that will be displayed in report can be selected from "Show fields" list. 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.

Report fields description:

- **Status** – call processing state;
- **Type** – call route (incoming/outgoing);
- **Call Date** – call date;
- **ID Client** – client's ID;
- **Client / Reseller** – client or reseller name;
- **Account Name** – respective used account;
- **Gateway IP** – client's gateway IP;
- **Gateway Name** – client's gateway name;
- **ID Reseller** – reseller ID value;
- **Reseller** – reseller-owner of client, if report was generated in per-client fashion;
- **Country** – name of the country which corresponds to Code Name;
- **Code Name** – name for respective code;
- **Code** – destination code;
- **Src Number** – billed source number;
- **Dst Number** – billed destination number;
- **Session Time** – call duration;
- **Billed Time** – billed call duration;
- **Rate** – destination rate;
- **Cost** – call cost;
- **Res Status** – disconnect code status;
- **Res Code** – disconnect code value;
- **CDR ID** – CDR ID value;
- **Conf ID** – conference ID value;
- **Call ID** – call ID value;
- **Call Sign** – call sign value;
- **SRC Number IN** – incoming number of the caller;

- **SRC Number OUT** - outgoing number of the caller;
- **SRC Number BILL** - phone number of the caller in billing system;
- **DST Number IN** - incoming number of the called;
- **DST Number OUT** - outgoing number of the called;
- **DST Number BILL** - phone number of the called in billing system;
- **Setup Time** – call setup time;
- **Connect Time** – call connect time;
- **Disc Time** – call completion time (disconnection);
- **PDD** – post dial delay;
- **SCD** – session connect delay;
- **Local Code** – local code value;
- **Codec** – used codec;
- **Bytes IN** – incoming amount of bytes;
- **Bytes OUT** – outgoing amount of bytes;
- **ID VoIP Gateway** – VCS VoIP Gateway ID;
- **VoIP Gateway** – VoIP Gateway name;
- **CDR Source** – cdr source description.

Graphical Charts in Statistics

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 >>" line below the statistic tables (Screenshot down below).

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



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	0
Not Zero Calls:	0	0	0
Total Time:	0 min	0 min	0 min

Type: all
Duration: non-zero
Output: Web

Calls with unknown destinations (known clients)

	origination	termination	all
Total Calls:	0	0	0
Not Zero Calls:	0	0	0
Total Time:	0 min	0 min	0 min

Type: all
Duration: non-zero
Output: Web

Calls with unknown destinations in resellers (known resellers)

	origination	termination	all
Total Calls:	0	0	0
Not Zero Calls:	0	0	0
Total Time:	0 min	0 min	0 min

Type: all
Duration: non-zero
Output: Web

Currency consistency check in statistics

	EUR	EUR	USD
Total Calls:	0	0	0
Not Zero Calls:	0	0	0
Total Time:	0 min	0 min	0 min

Statistics data is consistent for all currencies, everything is OK.

Calls Rerating

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 main window

The screenshot shows the 'Calls Rerating' interface. At the top, there is a title bar with 'Statistics' and 'Calls Rerating'. Below this is a message box with an information icon and the text 'Please select parameters for re-rating'. The main area is a search form with a 'Query' label and a magnifying glass icon. The form contains several fields: 'Period' (today), 'Start Date' (2011-02-23), 'Start Time' (00:00:00), 'End Date' (2011-02-23), 'End Time' (23:59:59), and 'Timezone' (GMT -05:00). There is a 'Query' button to the right. Below these are several rows of fields: 'Client' (empty), 'Code Name' (empty), 'Code' (empty), 'Result Code' (all), 'Code Deck' (Use pre-assigned code decks), 'Duration' (non-zero), 'VoIP Gateway' (all), 'Group' (empty), 'Type' (all), 'Match Clients' (mismatched), and 'Match Codes' (mismatched). Each field has a search icon or a dropdown arrow.

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 reration 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 reration query with large chunks of information (for example, rerating 3 million of calls at once is not recommended).

Reports to E-mail

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	Company	Last sent	Status	
34345	Every 5 hours	15 hours	Company Name1	08/22/2011 14:45:08 +0200	●	✖
444	Every 25 hours	60 hours	Company Name1	08/22/2011 14:45:08 +0200	●	✖
test	Every 1 hours	23 hours	Company Name1	08/22/2011 14:45:08 +0200	●	✖
test1	On 1 hours	23 hours	Company Name1	08/22/2011 14:45:08 +0200	●	✖
test_f	On 1 hours	24 hours	Company Name1	—	●	✖
test orig	Every 10 hours	23 hours	Company Name1	08/22/2011 14:45:08 +0200	●	✖

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:

- **Name** – query name;
- **Run** – how often a report should be created for specified interval;
- **Interval** – amount of last hours of statistics a report should include;
- **Company** – name of reseller which owns current query;
- **Last sent** – date of latest successful sending of report to e-mail;
- **Status** – query current status.

Archive Management

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

Statistics
Archive Management ⌵

Active Statistics Packages

Date	Total Legs	New Legs	Re-Rating Legs	Progress / Version				
▼ 2012, June (8)	143 669 39088:25:08	0 00:00	0	100.00%				
▼ 2012, May (28)	520 680 145127:36:24	0 00:00	0	100.00%				
▼ 2012, April (4)	1 842 190:23:36	0 00:00	0	100.00%				
29 April, 2012	2 01:40	0 00:00	0	100.00%	trunk_i			
25 April, 2012	1 838 188:19:56	0 00:00	0	100.00%	3.3.3.0			
24 April, 2012	0 00:00	0 00:00	0		3.3.3.0			
21 April, 2012	2 2:02:00	0 00:00	0	100.00%	trunk_i			
▼ 2012, March (1)	62 00:00	0 00:00	0	100.00%				
▼ 2012, February (1)	6 3:09:04	0 00:00	0	100.00%				

Archived Statistics Packages

i There are no archive packages

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 month's name to view all available packages.

Active Statistics Packages table columns description:

- **Date** – system package creation date;
- **Total Calls** – processed calls quantity;
- **New Calls** – quantity of calls that have not been processed yet;
- **Re-rating Calls** – quantity of calls queued for rerating;
- **Progress / Version** – shows overall data processing progress and respective package version;
- **Packages** – number of available packages.

Active Statistics Packages are managed with 4 checkboxes:

- **Update** – updates selected package to latest database format (useful after system update to new version);
- **Rotate** – moves package to archive;
- **Clean** – deletes package from database *without* performing balance rollback;
- **Delete** – deletes package from database *with* 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.

Archive 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:

- **Filename** – name of the archive file which contains system package;
- **Date** – system package creation date;
- **Size** – size of an archive file.

Archive Statistics Packages are managed with 2 checkboxes:

- **Restore** – restores system package to database;
- **Delete** – 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.

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:

- [Rates Management Details](#)
- [Active Calls](#)
- [Factors Watcher](#)

Rates Management Details

This section will describe everything that concerns the rates management tools of JeraSoft VoIP Carrier Suite, which are provided by Rates Management Module.

VCS Rates Management Module provides you with advanced features that allow you to analyze, compare and create rate sheets within VCS's web-interface without use of any third-party software. These features are grouped under *Tools* section and are named [Rates Generator](#) and [Rates Analysis](#).

Also, you can check our [Useful Tips](#), that will help you to provide more useful and comfortable Rates Management.

Rates Generator

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 «Create New» button. Set name and reseller for the preset and press «OK». Then, by clicking on a name of your new preset, you will be able to construct your Rates Generator query:

Screenshot: Adding new Rates Generator rule

- **Action** – select how you want result to be delivered. The options here are:
 - **Create new rate table** – created price list will be added as new rate table with specified name;
 - **Update rate table** – selected rate table will be updated with data of created price list;
 - **Export to CSV** – price list will be saved as CSV file;
 - **Export to XLS** – price list will be saved as XLS file.
- **RT name** – name of rate table that should be created or updated;
- **Code Deck** – select a code deck that will be used to search for codes in source and name destination codes in new price list;
- **Reseller** – specify reseller to whom newly created rate table should belong;
- **Effective Date** – set effective date of rates in new price list (note that if you are updating existing rate table you will have option of specifying effective dates for three types of rates: ones that increased, decreased and ones that didn't change);
- **Currency** – specify the currency of rates in new price list.

By clicking 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:

- **General** – set basic parameters of your rule here:
 - **Code** – pick a code for current rule;
 - **Code Name** – pick group of codes for current rule;
 - **Time Profile** – select a time profile for codes that will be picked from sources;

- **Quality** – set quality parameters of your rule here:
 - **ASR** – specify ASR ranges that should be used when picking destinations from sources;
 - **ACD** – specify ACD ranges that should be used when picking destinations from sources;
- **Sources** – select one or multiple sources for picking data for new price list;
- **Margins** – specify ranges of rates that should be picked from sources and apply respective margins;
- **Rate Settings** – specify additional parameters that should be noted when picking destinations from sources (*Setup Fee, Min. Time, Interval, Grace Time*).

Working with this tool is really simple – select your Action, select a source, specify code and margins and when you click «Add rule», 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.

That was the description of basic actions you must take to get new price list, but to refine your results, you can use following additional criteria. These additional options are presented as drop-down lists and you can do the following:

Advanced Options:

- **Actual on** – only rates which are actual on this date will be included into resulting price list;
- **Rate Position** – 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.)
- **Detect fake** – 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 *Skip distance*, then rate is considered fake and removed from result.
- **Skip distance** – a percentage value of difference between current rate and direct average when performing *Detect fake*.

Quality Options:

- **Analyze period** – define a number of hours to analyze for picking ACD and ASR quality;
- **Code min time** – define a number of minutes that should be available for each code that satisfies quality parameters;
- **Unmatched price** – define price for all codes which do not satisfy quality parameters.

Adjust Options:

- **Adjust results** – enable 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;
- **Rate per min** – define a rate for codes which are present in code deck, but were not provided by your rules, when performing *Adjust results*;
- **Setup Fee** – define setup fee for those rates;
- **Min Time** – define minimum time for those rates;
- **Interval** – define interval for those rates;
- **Grace Time** – define grace time for those rates;
- **Time Profiles** – define time profile for those rates.

Optimization Options:

- **Enable Simple** – applies same price for all codes inside same code name by using three options: minimal available price, maximal available price, or average price of all available;
- **Enable Vertical** – enables merging of longer codes into shorter ones, if respective rates satisfy *Target < Parent* and *Target > Parent* settings;
- **Enable Horizontal** – enables application of same rate to codes of same lengths, which belong to the same code name, if respective rates satisfy *Target < Parent* and *Target > Parent* settings;
- **Target < Parent** – 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;
- **Target > Parent** – 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.

Additional Rates List:

This is a list of codes that you want to see in resulting price list no matter what generator will pick up from sources. Simply add desired codes and set tariffication parameters like in *Rate Tables* section.

Take note, that when doing "*Action: export to file*", system will provide you additional options window, where you can set export parameters (which columns are needed etc). And if you do "*Action: update rate table*", after rates are imported, you will have to open respective rate table and confirm required rates (default state of all rates created via *Rates Generator* is "require confirmation").

Rates Analysis

This section is designed to analyze rates that are currently present in the system. Main window looks like on Screenshot:

Screenshot: Rates Analysis section main window

Country	Code Name	Code	ColinaNet_orig	ColinNet_orig	chg43t3ff
Ukraine Mobile	Ukrtelecom	38091	0.1180	0.0000	0.1160
Ukraine Mobile	Telesystems	38092	0.1180	0.0000	0.1160
Ukraine Mobile	Asteitit	38093	0.1180	0.0000	0.1160
Ukraine Mobile	Intertelecom	38094	0.1180	0.0000	0.1160
Ukraine Mobile	UMC	38095	0.1180	0.0000	0.0720
Ukraine Mobile	KS	38096	0.1180	0.0000	0.0715
Ukraine Mobile	KS	38097	0.1180	0.0000	0.0715
Ukraine Mobile	KS	38098	0.1180	0.0000	0.0715
Ukraine Mobile	UMC	38099	0.1180	0.0000	0.0720

Query Time: 0.0656 sec

Query Form Fields:

- Analyze by: rate tables
- Code Name: (empty)
- Code: 3809*
- Country: (empty)
- Group by: code
- Get margins for: (empty)
- Actual on: 2010-10-01 17:40:13
- Rate age: (empty) days
- Currency: USD
- Output: Web
- Code Dept: TOIVO TEST
- Outlook: rates comparison

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.

Useful Tips

On this page

- [Billing by Access Numbers](#)
- [Automatic Rates Notifications \(Addendums\)](#)

Billing by Access Numbers

Rates Management module has the ability to apply additional Extra Rate to destinations. This is useful for easy and proper billing by access numbers. This function is available through *Rate Tables* section. To apply Extra Rates to customer traffic you need to do the following:

- Go to *Configuration – Client Groups* and create a group of *Orig Traffic* type named *Toll Free Group*;
- Go to *Management – Clients* and open customer's presets tab;
- Find *Traffic Processing* and perform a translation of *Orig* type, which says the following: in case call comes from defined access number (use *Src Matchfield*), put this call into *Toll Free Group*;
- Open Rate Table of this customer, go to *Extra* tab and apply extra rate for all calls in *Toll Free Group*.

Automatic Rates Notifications (Addendums)

This will allow you to send rate changes to your customers within VCS' interface. In short – if your customer's rate table is updated by some means, system will automatically generate and send notification e-mail to that customer with information which rates were increased/decreased/closed etc.

Here is how you can set Rate Addendum notification for one of your particular customers:

- Go to *Management – Clients* and open your customer's properties page;
- Find "*Rate Notification*" box and enable it;
- Don't forget to specify notification parameters: "Format" of the attachment with rate details, "Notify type" for displaying full current price list, or changed rates only, and "Last Notified for" – day when system notified your customer last time (this date is used to get actual updates to rate table by system). Finally, "*Notify Now*" button allows you to generate and send such notification manually.

In general, setting this tool to work is as simple, as *Autoinvoicing*.

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.

Factors Watcher

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			
5	CDRs List Simple1 Analyze by: Summary report Check lines: 30 / 1051200 min No check was made yet	0	Client: Acstar Telecoms Code Name: - Group By: -	Reseller: Company Name1 Code: - VoIP GW: -		
3	Summary Complex Analyze by: Summary report Check lines: 30 / 130000 min Last check on: 09/06/2019 22:15:29 +0300	2	Client: Acstar Telecoms Code Name: - Group By: Client, Code	Reseller: - Code: - VoIP GW: -		
6	Test Analyze by: Summary report Check lines: 30 / 30 min No check was made yet	0	Client: Booth 1 Code Name: - Group By: Account	Reseller: Company Name1 Code: - VoIP GW: -		
12	Test 123 Analyze by: Summary report Check lines: 30 / 30 min No check was made yet	0	Client: - Code Name: - Group By: Client, Code	Reseller: Company Name1 Code: - VoIP GW: -		

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

Screenshot: Adding new Factors Watcher query

Adding of query

Name:

Check every: min

Analyze interval of: min

Analyze by: | [test this query](#) »

Client:

Code Name:

Code:

Under Reseller:

Code Deck:

VoIP Gateway:

Group By #1:

Group By #2:

Group By #3:

- **Name** – query name;
- **Check every, min** – how often to perform checks;
- **Analyze interval of, min** – what interval of time to check;
- **Analyze by** – 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, *CDRs List* allows you to manipulate with phone numbers, while *Summary* allows such operations with ACD and ASR;
- **Client** – select a client;
- **Code Name** – select a code group;
- **Code** – specify the code;
- **Under Reseller** – specify a Reseller;
- **Code Deck** – select a code deck to pull code names from;
- **VoIP Gateway** – select a VoIP gateway;
- **Group by #** – group query by selectable parameter (client, account, code group, code or VoIP gateway);
- **Test this query** – press this link to test your query as *Summary Report* or *CDRs List* 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 button.

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

Editing of Watch Rules
CDRs List Simple

+ add rule

Rows 0 - 0 from 3

Match			Factors	Action	Lock Period	
Call Origin	Client	Code				
origination <input type="button" value="v"/>	<input type="text"/>	444	setup_duration > 5	Block Number <input type="button" value="v"/>	0 min	✖
termination <input type="button" value="v"/>	<input type="text"/>	<input type="text"/>	src_number_in < 15	Block Code <input type="button" value="v"/>	0 min	✖
origination <input type="button" value="v"/>	test	*	src_number_in > 80; session_time < 10	Block Code Name <input type="button" value="v"/>	0 min	✖

Match - you can use "*" wildcard in these fields.
Factors - you should list watch rules in this field delimited by ";", list of correct fields: setup_duration, disconnect_cause, src_number_in, session_time
Please note, that "disconnect_cause" rule can possess the following values:
 16 or 31 - normal call clearing,
 3 - no route to destination,
 17 - user is busy,
 34 - no channel available.
 All other values can be considered as abnormal call ending.

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:

- **Match** – a set of parameters that are used as base for checks:
 - **Call Origin** – type of route to check (origination, termination or both);
 - **Client** – what client to apply rules to;
 - **Account** – what account to apply rules to;
 - **Code Group** – what code group to apply rules to;
 - **Code** – what code to apply rules to;
 - **VoIP Gateways** – what VoIP gateway to apply rules to;
- **Factors** – factors that are applied to current rule. Rules must be listed with delimiting symbol ";". Correct list of rules: *time_total, time_billed, calls_total, calls_notzero, calls_success, calls_busy, calls_nochannel, calls_error, acd_std, acd_cur, asr_std, asr_cur*. For example, if you enter "time_total > 100" this will mean that when total calls time count for respective match parameters goes over 100 minutes, system will create an alert;
- **Action** – an action that should be taken if rule match is found;
- **Lock Period** – if action was block of number, destination or code, then define duration of that block in this field.

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 Useful Tips](#)

Routing Plans

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. To add new routing plan, simply click on «Create new» button and fill the following:

Screenshot: Routing Plans section main window

ID	Name	Reseller	Code Deck	Rules Hunting	DR Order	Rules
87	123	...root..	—	longest only	by code / appeal	0
88	123	...root..	—	longest only	by code / appeal	0
96	123	...root..	—	longest only	by code / appeal	0
85	aaazzz	...root..	—	longest only	by code / appeal	0
73	BLABLA	Company Name1	DEFAULT	longest only	by code / appeal	22
68	Copy of Copy of DR: Complex LCR	ITEST1	—	longest only	by code / appeal	0
69	Copy of Copy of DR: Proportional	...root..	—	longest only	by code / appeal	0
65	Copy of DR: Complex LCR	...root..	—	longest only	by code / appeal	3
66	Copy of DR: Complex Quality	ITEST1	DEFAULT	all matching	by code / appeal	4
67	Copy of DR: Proportional	...root..	—	longest only	by code / appeal	1

- **Name** – a name for your routing plan;
- **Reseller** – 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;
- **Code Deck** – select a Code Deck if you want to route by code names;
- **Rules Hunting** – choose a hunting mode. Two options are available: *longest only* – routing will find only the longest matching code and will stop looking for shorter codes that comply to routing rule otherwise; *all matching* – all possible matches will be found, including even shortest codes. Note, that this only applies to rules listed in Routing Plan.;
- **DR Order** – select mode of routes sorting in routing table. The options here are: *by appeal* – routes will be sorted in accordance to their resulting appeal value; *by code / appeal* – routes will be grouped by codes and then sorted by appeal value;
- **PM** – select a default profit margin value for this whole routing plan;
- **Vendor Limit** – indicates how many routes from single provider can be used in routing table, if provider has multiple accounts. If left empty, there is no such limit;
- **Origination Limit** – limits usage of current routing plan to clients of selected companies, including sub-companies. Owner is always included;
- **Termination Limit** – limits vendors that are able to terminate this routing plan to ones belonging to selected companies, excluding sub-companies. Owner is always included.

Screenshot: Routing plan contents

Code	Code name	Priority	Type	Terminator / Policy	PM	Params	Capacity
*		1	Dynamic	Complex LCR		TP: all time	
380		0	Dynamic	Simple LCR	0.0000	TP: test L: 1 / 3	
380		0	Static	Vendor 1 / all accounts	0.0000	TP: all time B: 0%	
770		0	Dynamic	Simple Quality		TP: all time	

This concludes creation of routing plan. Now you need to fill it with routing rules (Figure 2). To do that click on routing plan's name, click «add rule» and fill the following:


- **Code** – enter a code which will be used in current routing rule, use * as wildcard;
- **Code Name** – 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;
- **Priority** – define a priority of rules execution, if they have similar code or code name specified;
- **Type** – select a dynamic or static type or routing for current rule;
- **Terminator / Policy** – if you selected static for type, you may specify a terminator here; if you selected dynamic for type, specify routing policy for current rule;

- **Profit margin** – define a profit margin value for current rule here;
- **Params** – a number of additional parameters available here. You may define time profile for the rule here, allowed phone number length and routing to/for specific routing groups (for dynamic rules);
- **Capacity** – limit capacity for current rule (leave blank for unlimited).

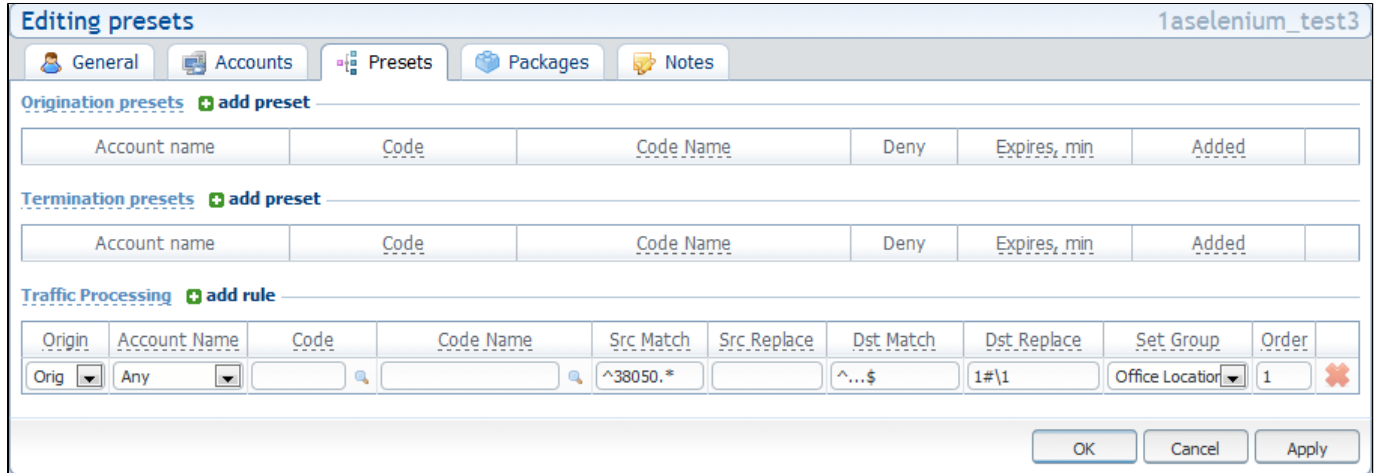
Also, you may go to *Parameters* tab to edit any information you entered during plan creation process or to *Import / Export* tab to import or export list of routing rules respectively.

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.

Routing Presets

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



Account name	Code	Code Name	Deny	Expires, min	Added

Account name	Code	Code Name	Deny	Expires, min	Added

Origin	Account Name	Code	Code Name	Src Match	Src Replace	Dst Match	Dst Replace	Set Group	Order
Orig	Any			^38050.*		^...\$	1#\1	Office Locator	1

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.

To add a route press a respective «add routing preset» and enter all required information in next fields:

- **Account name** – client's account that should be used in current routing rule;
- **Code** – specify a code of destination here (use * as wildcard);
- **Code Name** – or select a destination name in this field if applicable;
- **Deny** – enable this to deny current route selection;
- **Expires, min** – set a duration in minutes, for which the block should be active (leave blank to block forever).

To perform a number translation, press «add translation rule» and fill the following fields:

- **Origin** – specifies, when current translation rule will be applied;
- **ORIG** – for calls originated from a client;
- **TERM** – for calls terminated to a client;
- **DR** – on Dynamic Routing, before sending calls to a terminator;
- **Account name** – select a respective account here;
- **Code** – specify a code of destination here (use * as wildcard);
- **Code Name** – or select a destination name in this field if applicable;
- **Src Match** – 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;
- **Src Replace** – put a resulting action in this field, that will be performed, if translation process will take place;
- **Dst Match** – 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;
- **Dst Replace** – put a resulting action in this field, that will be performed, if translation process will take place;
- **Set Group** – allows you to assign matched traffic to specified Orig Group, for further *routing by src number* or applying *extra rates*;
- **Order** – set an order for rules execution (the lower the order – the higher the priority).

Routing Analysis

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:

- **Client** – select a client you want to create report about;
- **Policy** – allows you to simulate different routing policies and see how situation would change;
- **Profit Margin** – get an example with different profit margin values;
- **Number** – 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);
- **VoIP gateway** – select a desired VoIP gateway here;
- **Output** – select result output format (web, XLS or CSV file).

When all required information is entered, press «*Query*» button. Here is how an analysis report may look like (Screenshot):

Screenshot: DR Analysis section main window

The screenshot shows the 'Routing Analysis' window. At the top, search parameters are set: Client: **Acestar Telecoms / account_1**, Destination: **380 | UKRAINE**, and Orig Rate: **1.4286 USD**. Below these, it shows 'Origin denied: by account / by route', 'Capacity — Client: — | 0 active calls', 'Capacity — Account: 5 | 0 active calls', 'Capacity — Reseller: — | 0 active calls', 'Routing Plan: **DR: Proportional**', 'DR Order: **by code / appeal**', and 'Rules Hunting: **longest only**'. A note says 'Type: not matched groups'. The main part is a table with columns: Appeal, Terminator, Code, Term Rate, Account IP / Name, Dst Number, and VoIP gateway. The table contains 10 rows of data. At the bottom, there is a 'Query' button and a 'Query Time: 0.0612 sec' indicator. The search form at the bottom shows Client: **Acestar Telecoms / account_1**, Number: **380962676111**, Routing plan: **all**, and Output: **Web**.

Appeal	Terminator	Code	Term Rate	Account IP / Name	Dst Number	VoIP gateway
0.1127 Nursat account_2	38096	Ukraine Mobile Kievstar	0.1127	Nursat_gw	380962676111#034	Any
0.1127 NatTerm account_1	38096	Ukraine Mobile Kievstar	0.1127	221.222.12.2/32	380962676111#034	Any
0.1127 Digerabi account_2	38096	Ukraine Mobile Kievstar	0.1127	Digerabi_gw	380962676111#034	Any
0.1127 Nursat account_1	38096	Ukraine Mobile Kievstar	0.1127	91.201.21.130/32	380962676111#034	Any
0.0100 Beta Co account_1	380	UKRAINE	0.0100	suren	00380962676111#034	Any
0.0100 test_cash_flow_client account_1	380	UKRAINE	0.0100	tester_flow	380962676111#034	Any
0.0100 test_cash_flow_client account_2	380	UKRAINE	0.0100	10.0.0.2/32	380962676111#034	Any
0.0100 Beta Co account_2	380	UKRAINE	0.0100	194.12.12.12/32	380962676111#034	Any
0.2500 Test z account_1	380	UKRAINE	0.2500	10.0.0.1/32	380962676111#034	Any

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

Dynamic Routing Policies

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


- **Simple LCR** – generic price-based routing;
- **Complex LCR** – three cheapest routes are sorted by quality;
- **Simple Quality** – generic quality-based routing;
- **Complex Quality** – three routes with most quality are sorted by price;
- **Proportional** – the lower the price and higher the quality route has, the more priority it gets.

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  button next to *DynRouting Manager*. The routing table will be generated shortly after.

Routing Useful Tips

On this page

- [Routing by SRC Number / Orig Group](#)
- [If Routing Doesn't Work](#)
- [Routes Testing](#)

Routing by SRC Number / Orig Group

Dynamic Routing Module has the function of providing routing based on src numbers, in addition to usual dst number routing. To use this type of routing you can do the following:

- Go to *Configuration – Client Groups* and create a group of *Orig Traffic* type;
 - Go to *Management – Clients* and open customer's presets tab, find *Traffic Processing* and perform a translation of Orig type, which says the following: in case call comes from specific src number (use *Src Match* field), put this call into group you just created (for routing by src number);
- or-
- Go to *Management – Clients*, open customer's accounts tab, and put an origination account into the group you just created (for routing by orig group);
 - Go to customer's *Routing Plan* and specify in routing rule "Allow routing only for following groups", where select orig group you've just created. This will insure that current rule will be applied only for traffic that belongs to specified group (either all traffic from designated src number(s) or from specified customer's account, belonging to an orig group).

If Routing Doesn't Work

If your newly routing setup doesn't work, please heed the following tips, maybe it's too early to call Customer Support Service:

- If you added or updated customer's rate, routing with new data will be available only after DynRouting Manager recreates routing table with most relevant information;
- If your customer's rate tables use Time Profiles, relevant rates will be effective in routing only after DynRouting Manager recreates the routing table after respective time profile settings come into effect (for example, if Time Profile states that rate is effective from 10am to 6pm, that rate will be used in routing only after first DynRouting Manager start after 10am, and not directly at 10am as stated by Time Profile);
- Pay attention to Routing Groups and Routing Permissions, it is possible that relevant vendors are forbidden for current customer or are in forbidden routing groups. This will be clearly visible in Routing Analysis, after query is made.

Routes Testing

JeraSoft VCS provides you means of comfortable and convenient testing of existing vendors. These means are provided by special routing plan, called *DR: Routes Testing*, which is not possible to edit through *Routing Plans* section. This plan will only be visible when assigned to an origination customer or in *Routing Analysis*.

So, how to use it? It's very easy. All you need to do is assign it to origination client which will be doing the testing (for example, this can be a SIP dialer phone of test-engineer), and then dial in following format: xxx*yyyy, where xxx is an ID of termination vendor's account (these ID's can be viewed in *accounts* pop-up, when you click "Extra Fields"), and yyyy – the actual number in international format (or other format, if it's set otherwise).

For example, if test-engineer will dial 100*4955667788, this will mean that number 4955667788 will be sent to a vendor, who has an account with ID = 100. This way a test person can quickly and conveniently test a lot of vendors, without the need to build new routing plans/rules for each particular case.

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 Methods](#)
- [Time Profiles](#)
- [Taxes Profiles](#)
- [Client Groups](#)
- [Invoices Templates](#)
- [VoIP Gateways](#)
- [Settings](#)

Code Decks

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	Uses
36	987	any reseller	6525	1
41	A_2	any reseller	6517	8
46	Aslambakistan	any reseller	5	0
49	Bentrapon VoIP	any reseller	1	5
1	Code Deck 1	Billing System Owner	63435	1
7	Code Deck 10	any reseller	6920	2
8	Code Deck 12	any reseller	993	0
10	Code Deck 13	any reseller	3577	0
9	Code Deck 15	any reseller	341	0
11	Code Deck 16	any reseller	9	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.

To create a code deck, press “Create New” button and specify the deck name and reseller it belongs to.

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

In the window that opens (Screenshot below), you will be able to perform next operations:

Screenshot: Code deck’s contents

Code	Code Name	Country
1	North America	
1204	Canada-Manitoba	
1226	canada-1226	
1242	Bahamas	
1242357	Bahamas-Nassau	
1242359	Bahamas-Nassau	
1242375	Bahamas-Bahamas Mobile	
1242395	Bahamas-Nassau	
1242422	Bahamas-Nassau	
1242423	Bahamas-Nassau	

- **Add Code** – when you press this button, you will be able to add a code group to your deck. The pop-up window contains the following parameters:
 - **Code** – destination code;
 - **Code Name** – displayed name of a code group;
 - **Country** – which country the codes in current group will belong to;
- **List** – list all codes;
- **Import** – the possibility to import a list of codes and code names from file. To import a file, do the following: press “Import” button, in a window that opens (Screenshot down below) select an import CSV file, specify column numbers that corresponds to number prefix code, code group name, country name, and group name that will be displayed in reports. “Skip first row” checkbox enables file first row ignoring, and “Field delimiter” field allows you to specify a delimiter symbol. And also, specify field importing method:
 - **Import only non-existing rows** – import only empty rows;
 - **Import all rows (replace existing)** – import all rows with overwriting of existing rows;
 - **Import all rows (remove existing first)** – import all rows with removal of existing rows;
 - **Skip first row** – skips first row of the file during import.

Screenshot: code groups importing window

The import file may have this structure:

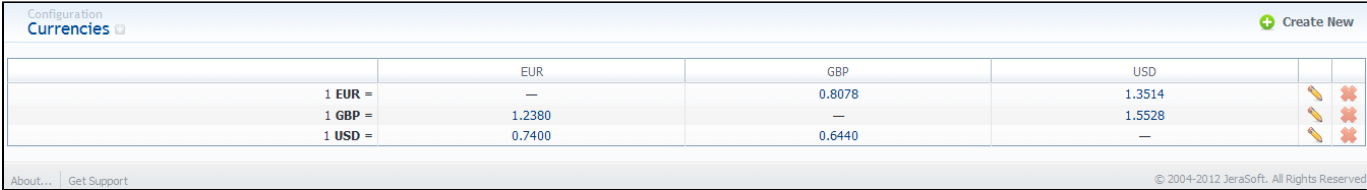
Code	Code Name	Country
55	Brasil	Brasil
5531, 5531210	Brasil – Belo Horizonte	Brasil
55312111	Brasil – Belo Horizonte	Brasil

- **Export** – allows you to export a contents of a code deck to file. To export info to file, do the following: press “Export” button, in window that opens specify delimiter symbol in “Field delimiter” field, and specify 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.

Currencies

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

Screenshot: Currencies section main window



The screenshot shows a web interface for configuring currencies. At the top, there is a header with 'Configuration' and 'Currencies' on the left, and a '+ Create New' button on the right. Below the header is a table with three columns for EUR, GBP, and USD. The table lists exchange rates for 1 EUR, 1 GBP, and 1 USD. Each row has an edit button (pencil icon) and a delete button (red X icon) on the right. At the bottom of the window, there are links for 'About...' and 'Get Support', and a copyright notice: '© 2004-2012 JeraSoft. All Rights Reserved'.

	EUR	GBP	USD		
1 EUR =	—	0.8078	1.3514		
1 GBP =	1.2380	—	1.5528		
1 USD =	0.7400	0.6440	—		

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

You can add new currency by pressing "Create New" button. In pop-up window, you should specify name for the new currency.

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

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.

Also, you can view a history of currency's rate changes that were made from currency's creation up to this moment.



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.

Payment Accounts

This section allows you to create different payment accounts for correct and precise transactions (payments) management. 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.

To create new payment account, simply click "*Create New*" button, specify account name and a reseller. After this, this account will be available in *Transactions* section.

Payment Terms

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		
9	1/1	every 7 days	2 days	on 4,2 day(s) before due date		
2	14/14	every 14 days	14 days	on 10,5,3,1 day(s) before due date		
8	15/7	every 15 days	7 days	on 1 day(s) before due date		
7	30/8	every 30 days	8 days	on 1 day(s) before due date		
6	7/3	every 7 days	3 days	on 2 day(s) before due date		
1	7/7	every 7 days	7 days	on 5,3,1 day(s) before due date		
10	PRE	on 1 day(s) of month	3 days	on 7 day(s) before due date		

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

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

Screenshot: Adding new payment profile

» Payment Terms / Adding

Name:

Payment: every days

Grace Period: days
(empty = do not check)

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

- **Name** – current profile name;
- **Payment** – 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);
- **Grace Period** – period that specifies how much time the client has to pay the bill after he was invoiced;
- **Notify Days** – here you can specify by how many days before the payment date reminders will be sent to client (for example, if you will enter 10 as a value, the reminder will be sent 10 days before the payment date). You can specify more than one value in this field dividing them with comma symbol - ",".

Payment Methods

This section is dedicated to configuration of methods your customers may use to recharge their balance. Currently, there are 2 default methods available: PayPal and Top-Up cards (Screenshot):

Screenshot: Payment Gateways section main window

Settings for: Atlantel

PayPal 0

E-mail : You PayPal email

Gateway Currency : U.S. Dollar (USD) Currency which will be used by user to perform a payment

System Currency : EUR System currency that is **equal** to the PayPal currency. **Note** that it is absolutely necessary to put the currency that is equivalent to the PayPal currency in this field

Description : By using this form you can recharge your balance with PayPal account. A user will see this text as a help-tip for respective payment method

Top-Up Cards 0

Description : By using this form you can recharge your balance with top-up card A user will see this text as a help-tip for respective payment method

Update

To configure them, first thing you need to do is select a Reseller, by using "Settings for" drop-down menu. This will mean that all customers belonging to selected Reseller will have these settings. The settings themselves are the following:

- **PayPal** – enable PayPal payment method;
- **E-Mail** – Paypal e-mail that should be used;
- **Gateway Currency** – user's currency for payments;
- **System Currency** – system currency that is equal to PayPal currency;
- **Description** – user will see this text as tooltip for current payment method;
- **Top-Up Cards** - enable Top-Up cards payment method;
- **Description** – user will see this text as tooltip for current payment method.

Time Profiles

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:

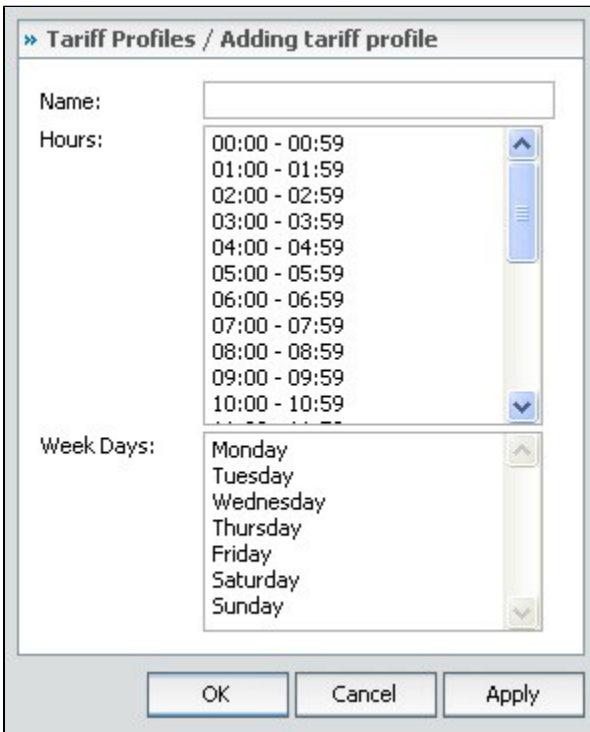
Screenshot: Time Profiles section main window



ID	Name		
2	business time		
3	non-business time		
4	weekends		
8	1200		
9	all time		
10	OFFLINE		
11	Ramka Tutulk		
15	fulltime		
1	all time 2		

You can add new time profile by pressing “Create new” button. A dialog-window will show-up:

Screenshot: Adding new time profile



» Tariff Profiles / Adding tariff profile

Name:

Hours:

- 00:00 - 00:59
- 01:00 - 01:59
- 02:00 - 02:59
- 03:00 - 03:59
- 04:00 - 04:59
- 05:00 - 05:59
- 06:00 - 06:59
- 07:00 - 07:59
- 08:00 - 08:59
- 09:00 - 09:59
- 10:00 - 10:59

Week Days:


- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday
- Sunday


OK Cancel Apply

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 *Ctrl-click* and *Shift-click* combinations for selection.

Taxes Profiles

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.

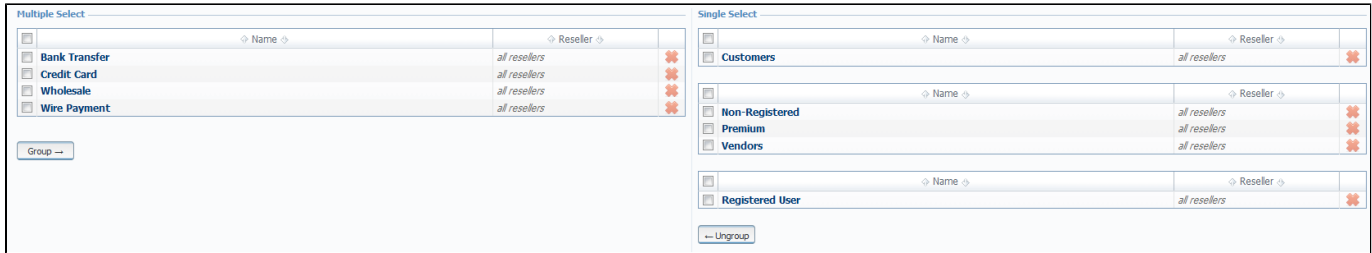
To create new profile click "Create New" button and in pop-up window fill name and reseller-owner of current profile. Also, you can fill in *notes* and *invoice notes* fields (invoice notes are additional text that will be a description of this tax profile in invoice). To actually add a taxation rules, you need to click  icon. This will add a single tax rule line, where you need to specify current tax name, it's percent value, effective start date and priority.

 **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 $100 + 10 + 22 = 132\text{USD}$.

Client Groups

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

Screenshot: Client Groups section main window



You can add new client group by pressing "Create New" button. Then enter a name for this group and choose group type: *Orig* and *Term Traffic* groups are used during Dynamic Routing to provide additional routing features (please consult [Routing Module Manual](#) for more info), *General Group* is used to group your clients with random criteria.

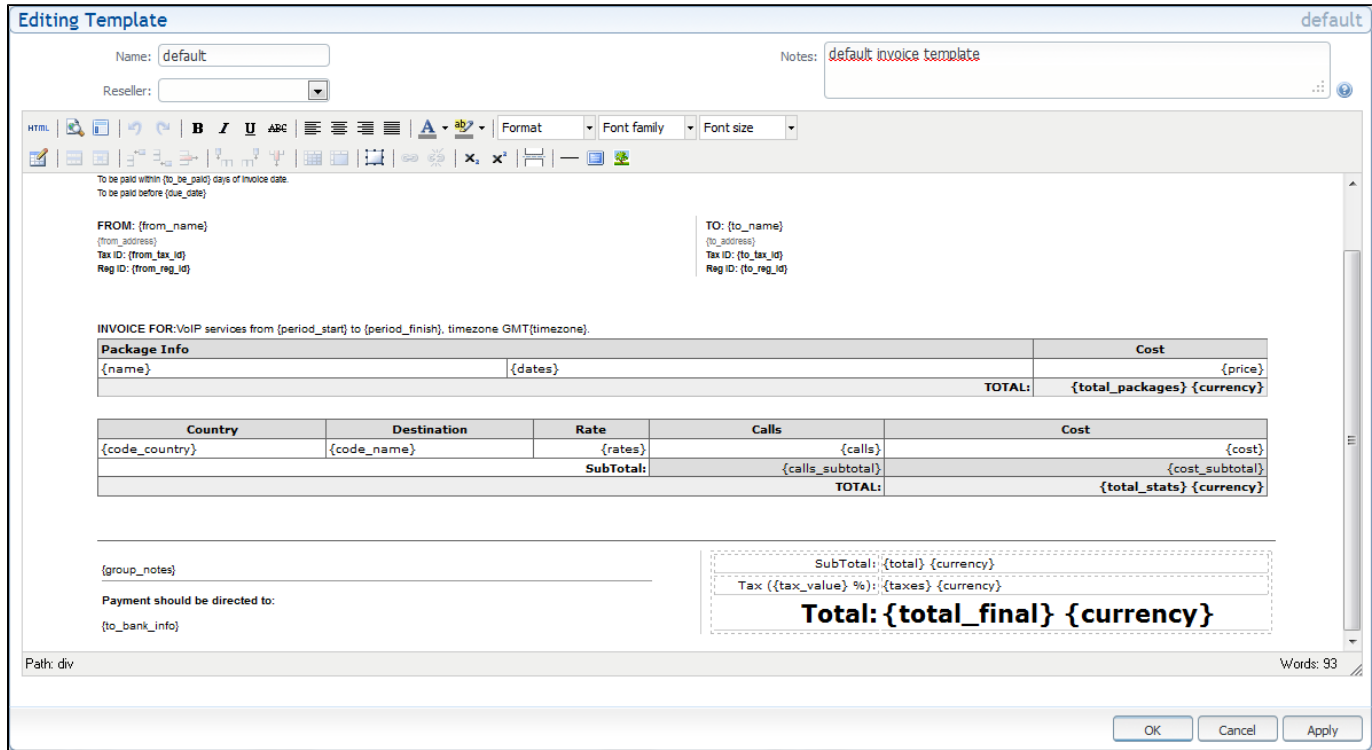
Invoices Templates

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.

When creating new template, first thing you must choose is the type of template. Currently there are two types – *xls* and *pdf*. 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. If *pdf* template is selected, you will see the interface similar to one of the popular text processors (Screenshot).

Screenshot: Creating an invoice template



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

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	Gateway Name	RADIUS Server	Files Collector	Files Downloader		
34	AsterTest	—	Asterisk	/usr/local/mvmts/billing/bill* view history		
22	Asterisk Test-CDR	—	Asterisk	/usr/local/mvmts/cdr-billing/* view history		
11	mera ast	Mera MVTS I	—	—		
12	ssw1	Mera MVTS I	—	—		
13	ssw1_slp	—	—	—		

To add a new switch press “Create New” button and specify next parameters in a window that opens (Screenshot):

Screenshot: Adding new VoIP Gateway

Editing VoIP Gateway Load Test

System Information

Gateway Name:

IP:

Calculation

Rate ORIG calls by DstIn number

Rate TERM calls by DstOut number

Rate calls only with "success" status

ORIG ANI Ident:

TERM ANI Ident:

Ident Priority:

Files Downloader

Files Downloader

Type:

Port:

Login:

Password:

From path:

Files Collector

Files Collector

After Parse:

Collector type:

Overwrite_TZ:

Skip Zero Calls

Skip Released Calls

SIP Server

SIP Server

RADIUS Server

RADIUS Server

Secret:

Collector type:

Overwrite_TZ:

Track active calls

Skip Zero Calls

Skip Released Calls

VoIP gateway usage is allowed for next resellers

Company Name1

DROptanov

Man Telco

KPN1

Traffic Processing | Code deck:

Origin	Code	Code Name	Src Match	Src Replace	Dst Match	Dst Replace	Set Group	Order
O / T								1

- **System Information** – general gateway information:
 - **Gateway Name** – VoIP gateway name;
 - **IP** – VoIP gateway IP-address;
- **Calculation** – calls processing information:
 - **Rate ORIG calls by Dst In number** – activates/deactivates originating calls processing by full phone number in statistics;
 - **Rate TERM calls by Dst In number** – activates/deactivates terminating calls processing by full phone number in statistics;
 - **Rate calls only with “success” status** – activates/deactivates processing of calls that have “success” end code only;
 - **ORIG ANI Ident** – sets originating calls ANI identification (options available: SRC number in, SRC number out, SRC number bill, DST number in, DST number out, DST number bill);
 - **TERM ANI Ident** – sets terminating calls ANI identification (options available: SRC number in, SRC number out, SRC number bill, DST number in, DST number out, DST number bill);
 - **Ident priority** – set the priority of account identification;
- **Files Downloader** – downloader settings:

- **SSH Port** – specify port for SSH;
- **Login** – gateway server login (default value is “root”);
- **From Path** – specifit CDR-files path (mask paths are allowed);
- **Files Collector** – *File Collectors* gather call data from CDR-files (activate this option if you plan to use integration via CDR-files):
 - **After Parse** – what should be done to files after processing (delete, move, archive and move);
 - **Collector Type** – which collector type should be used;
 - **Overwrite TZ** – timezone selection (if you select a different timezone, system will ignore a timezone information stored in CDRs-file and use current value);
 - **Skip Zero Calls** – activates/deactivates zero duration calls ignoring;
 - **Skip Released Calls** – activates/deactivates released calls ignoring;
- **SIP Server** – allows acceptance of SIP packets from current gateway. Required for SIP Redirect routing feature;
- **RADIUS Server** – *RADIUS Collectors* gather call data from RADIUS-server via RADIUS-protocol (activate this option if you plan to use integration via RADIUS-protocol):
 - **Secret** – RADIUS-server password;
 - **Collector type** – which collector type should be used;
 - **Overwrite TZ** – timezone selection (if you select a different timezone, system will ignore a timezone information stored in CDR file and use current value);
 - **Track Active Calls** – enables the display of active calls in *Active Calls* section;
 - **Skip Zero Calls** – activates/deactivates zero duration calls ignoring;
 - **Skip Released Calls** – activates/deactivates released calls ignoring;
- **VoIP Gateway usage is allowed for next resellers** – set resellers that are allowed to use this gateway here;
- **Traffic Processing** – here you can set number translation rules that will be executing for all calls processed by current gateway.

You can view files downloading history by pressing “*DL History*” button.

Settings

This section is used to manage system notify messages distribution, and specifying system time and date format. Main window is presented on Figure 44.

System Settings

System Currency:	<input type="text" value="USD"/>	Default system currency name, if you need more than 1 currency - you can add them in Management / Currencies section
Default language:	<input type="text" value="English"/>	Choose which language will be selected by default on login screen
Timezone:	<input type="text" value="System (+0300)"/>	Default system timezone, you can change timezone in statistic reports queries
Mail server / host:	<input type="text" value="localhost"/>	Hostname or IP address of SMTP server
Mail server / from:	<input type="text" value="root1@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
Statistics processing order:	<input type="text" value="old calls first"/>	Order of statistics processing when the queue is large
Calculator mode:	<input type="text" value="periodically run"/>	Select calculator processing mode: <ul style="list-style-type: none">• periodic – runs every X minutes by Tasks Scheduler, faster processing bulk of CDRs, but causes some delay• realtime – 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/
<input type="checkbox"/> Enable CAPTCHA for clients		Enables graphical defence during sign-in to client's control panel
<input type="checkbox"/> Enable CAPTCHA for administrators		Enables graphical defence during sign-in to administrator's interface
Default PIN Length:	<input type="text" value="8"/>	For Calling Cards only — default length of PIN code for generated cards

Output and Import/Export

Date Format:	<input type="text" value="%m/%d/%Y"/>	Output format for dates, you can check syntax for this field in the User Manual
Datetime Format:	<input type="text" value="%m/%d/%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, closer"/>	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.

Invoicing Settings

Invoice No Template:	<input type="text" value="%Y%m/%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="101540"/>	Last Invoice No used in system for generation of invoices
Default invoice fields:	<input type="text" value="Account"/> <input type="text" value="Country"/> <input type="text" value="Destination"/> <input type="text" value="Codes"/> <input type="text" value="Rate"/> <input type="text" value="Calls"/> <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="5"/> 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.
Autoinvoice products:	<input type="text" value="Combined invoice with statistics"/>	Defines the products autoinvoicing: Combined invoice with statistics - autoinvoice tool will issue invoices that contain calls and products data; Separated invoices - autoinvoicing tool will create separated invoices for calls and products (customer will receive 2 invoices - for calls and for products)
CDR fields for invoices:	<input type="text" value="Call Date"/> <input type="text" value="Gateway IP"/> <input type="text" value="Gateway Name"/> <input type="text" value="Country"/> <input type="text" value="Code Name"/> <input type="text" value="Code"/> <input type="text" value="Account Name"/> <input type="text" value="Src Number"/> <input type="text" value="Dst Number"/>	List of fields that will be selected by default when adding CDR-list to invoice. Same fields will be used during auto-invoicing generation.

	Session Time Billed Time Rate Cost VoIP Gateway	
RADIUS Server		
Bind to address:	<input type="text"/>	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="3"/>	Number of thread that process packets, usually should equal to number of CPU cores - 1
Queue size:	<input type="text" value="500"/>	Size of packets queue for processing, it is used in case of processing delays of the server - specified number of packets will be stored in the memory for later processing
Log packets:	<input type="text" value="disabled"/>	Save packets dumps to events log: disabled - do not log anything enabled - log packets
Max call length:	<input type="text" value="7200"/>	Maximal call duration in seconds, for customers in postpaid mode.
Changes will be only applied after you restart RADIUS server from Task Scheduler section		
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
Log routes:	<input type="text" value="detailed"/>	Log routing replies to events log: disabled - do not log anything only empty - log only empty routes detailed - log all routes
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 checked="" type="checkbox"/>	Event on unprofitable calls	Analyze calls for unprofitables and send events with details, analyze is processed each time Reports Generator runs
<input checked="" 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
Watch for free space at:	<input type="text" value="/usr/local/billbery: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.

Figure 44: Settings section

System Settings

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

- **Default Currency** – specify currency that will be used as default for generation of routing;
- **Domain Name** – 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;
- **Default Language** – select default language;
- **Timezone** – select default timezone;
- **Statistics processing order** – specify what statistics to process first (newer or older);
- **Calculator mode** – defines the calculator workout, whether it will start periodically through Task Scheduler, or will be constantly running;
- **Enable client's panel** – switch customer's interface on/off with one click;
- **Enable CAPTCHA for clients** – enables CAPTCHA feature for customer interface;
- **Enable CAPTCHA for administrators** - enables CAPTCHA feature for administrator interface;
- **Default PIN length** – sets the default length of PIN-code when creating calling card series.

Mail Server Settings

- **Host** - mail server address that is used by system;
- **Port** – specify port and security type of SMTP server (Plain, TLS, SSL);
- **From** - the e-mail address that will be specified as sender;
- **Login** – login for SMTP server;
- **Password** – password for SMTP server.

Output and Import/Export

Time and date parameters configuration can be performed in next formats:

Date Format:

- **%m** – month number. Allowed values: from 01 to 12;
- **%d** – day of the month in numeric form. Allowed values: from 01 to 31;
- **%Y** – number of the year, that consists of 4 numbers. Value example: 1999, 2005, 2010;

Time Format:

- **%H** – hours in 24-hour format with leading zeroes. Allowed values: from 00 to 23;
- **%M** – minutes with leading zeroes. Allowed values: from 00 to 59;
- **%S** – seconds with leading zeroes. Allowed values: from 00 to 59.

Additionally, you can configure the following:

- **Items per page** – set default quantity of items displayed on a single page;
- **CSV Delimiter** – set default delimiter for CSV files;
- **CSV Decimal Point** – set default decimal point for CSV files;
- **Close rates marked by** – when importing rate sheets system will be able to close respective rates, if *Rate Changes* column has one of the key-words entered here;
- **Number Formatting** – specify how many digits of a number should be hidden, when this function is activated for a customer;
- **Output Encoding** – select which encoding to use when exporting a file.

Invoicing Settings

Invoicing settings are grouped here:

- **Invoice No Template** – default template for invoice number;
- **Invoice Last No** – number of last issued invoice;
- **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;
- **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:

- **Bind to address** – specify your servers IP addresses, separated by comma to bind RADIUS to;
- **Accounting port** – specify accounting port here (default is 1813);
- **Authorization port** – specify authorization port here (default is 1812);
- **Number of workers** – number of RADIUS workers, usually is equal to number of CPU cores minus one;
- **Max call length** – limit maximum call length in seconds.

SIP Server

SIP Server settings can be changed here:

- **SIP Port** – specify a SIP port that system should listen to.

Dynamic Routing

Dynamic routing settings can be altered here:

- **Analyze period** – an amount of minutes of last available statistics that will be used to build routing table;
- **Log empty routes** – enable to get log messages regarding zero routes.

Notification and Monitoring

Notify messages distribution and other monitoring settings are configured here.

Respective fields description:

- **Checkbox “Event on not found account”** - activates/deactivates notify sending when no account was found;
- **Checkbox “Event on not found tariff”** - activates/deactivates notify sending when no rate was found;
- **Checkbox “Event on unprofitable call”** - activates/deactivates notify sending when unprofitable call was found;
- **Checkbox “Event on zero time calls”** - activates/deactivates all previous checkboxes effects when calls with zero duration were found;
- **Resend low balance events every** – resend low balance notification once in a specified period;
- **Rate changes notification period** – specify amount of time which needs to pass after actual rate change, so notification will be sent;
- **Period to notify future changes** – specify number of days, for customer to be informed 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:

- **Delete events from log after** – 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);
- **Statistics rotate delay** – 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);
- **Delete not actual rates after** – cleans non-actual rates from database when specified number of days passed;
- **Delete parsed CDR-files after** – define when system should delete old parsed CDR-files;
- **Delete archived log-files after** – define when system should delete archived log-files.

Backup settings

- **System backup period** – 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);
- **Destination for backup packages** – absolute path to the folder where system backup copies will be stored (**Warning!** This folder must not be within any system folders!);
- **Leave last X packages** – 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

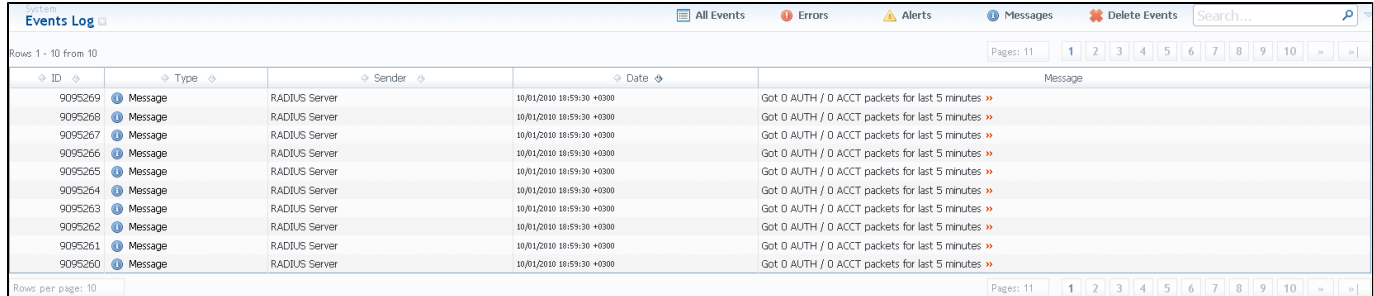
This section of our Guide contains everything that relates to the *System* tab of JeraSoft VoIP Carrier Suite. For more details please go to the related subsections:

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

Events Log

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

Screenshot: Events Log section main window



The screenshot shows the 'Events Log' section of a system interface. At the top, there are navigation buttons for 'All Events', 'Errors', 'Alerts', 'Messages', and 'Delete Events', along with a search bar. Below the navigation is a table with columns for ID, Type, Sender, Date, and Message. The table contains 10 rows of data, all of which are 'Message' type events from 'RADIUS Server' at the date '10/01/2010 18:59:30 +0300'. The message content for all rows is 'Got 0 AUTH / 0 ACCT packets for last 5 minutes >>'. The interface also shows pagination controls for 11 pages, with page 1 selected.

ID	Type	Sender	Date	Message
9095269	Message	RADIUS Server	10/01/2010 18:59:30 +0300	Got 0 AUTH / 0 ACCT packets for last 5 minutes >>
9095268	Message	RADIUS Server	10/01/2010 18:59:30 +0300	Got 0 AUTH / 0 ACCT packets for last 5 minutes >>
9095267	Message	RADIUS Server	10/01/2010 18:59:30 +0300	Got 0 AUTH / 0 ACCT packets for last 5 minutes >>
9095266	Message	RADIUS Server	10/01/2010 18:59:30 +0300	Got 0 AUTH / 0 ACCT packets for last 5 minutes >>
9095265	Message	RADIUS Server	10/01/2010 18:59:30 +0300	Got 0 AUTH / 0 ACCT packets for last 5 minutes >>
9095264	Message	RADIUS Server	10/01/2010 18:59:30 +0300	Got 0 AUTH / 0 ACCT packets for last 5 minutes >>
9095263	Message	RADIUS Server	10/01/2010 18:59:30 +0300	Got 0 AUTH / 0 ACCT packets for last 5 minutes >>
9095262	Message	RADIUS Server	10/01/2010 18:59:30 +0300	Got 0 AUTH / 0 ACCT packets for last 5 minutes >>
9095261	Message	RADIUS Server	10/01/2010 18:59:30 +0300	Got 0 AUTH / 0 ACCT packets for last 5 minutes >>
9095260	Message	RADIUS Server	10/01/2010 18:59:30 +0300	Got 0 AUTH / 0 ACCT packets for last 5 minutes >>

There are few types of events:

- *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.*

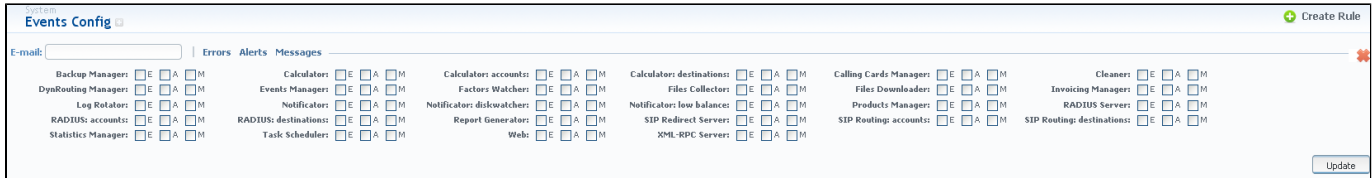


Tip: When you press "Delete Events" button, all events that satisfy current search query will be deleted from the system!

Events Config

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

Screenshot: Events Config section 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.

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 'List Items' button. Below the search bar, it indicates 'Rows: 1 - 10 from 398'. The table has columns for ID, To, Type, Subject, and Created. The data rows show various email records, including 'Low Balance' notifications and 'Invoice' messages.

ID	To	Type	Subject	Created
1153	Beta Co mail@zinok.org	Low Balance	Low balance notification from sub-flore	02/23/2011 06:12:49 +0200
1152	Custom Term custom_terms@gmail.com	Low Balance	Low balance notification from Man Telco	02/23/2011 06:12:49 +0200
1151	Test z z@jerasoft.net, mail@zinok.org	Invoice Inv-Test z-100125	Low balance notification from Äpfel UTF8	01/26/2011 00:14:44 +0200
1150	@jerasoft.net, mail@zinok.org	Custom	JeraSoft Test	01/05/2011 23:11:10 +0200
1149	Acestar Telecoms mail@zinok.org	Low Balance	Low balance notification from Turtrans LTD	12/10/2010 19:05:02 +0200
1148	Beta Co mail@zinok.org	Low Balance	Low balance notification from Turtrans LTD	12/10/2010 19:05:02 +0200
1147	Acestar Telecoms mail@zinok.org	Low Balance	Low balance notification from Turtrans LTD	12/09/2010 18:05:02 +0200
1146	Beta Co mail@zinok.org	Low Balance	Low balance notification from Turtrans LTD	12/09/2010 18:05:02 +0200
1145	Acestar Telecoms mail@zinok.org	Low Balance	Low balance notification from Turtrans LTD	12/08/2010 18:05:02 +0200
1144	Beta Co mail@zinok.org	Low Balance	Low balance notification from Turtrans LTD	12/08/2010 18:05:02 +0200

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.


System Status & Services table columns description is following:

- **ID** – system service ID;
- **Service** – name of system service;
- **Started on** – service start date;
- **Uptime** – service current uptime;
- **Actions** – an action that currently can be performed with an utility (start/stop).

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

Database Sessions table columns description is following:

- **ID** – database session ID;
- **Session Start** – session start date;
- **Query Start** – query start date;
- **Duration** – session duration
- **Query** – query description.

You can kill any of current sessions by pressing  button.

Task Scheduler

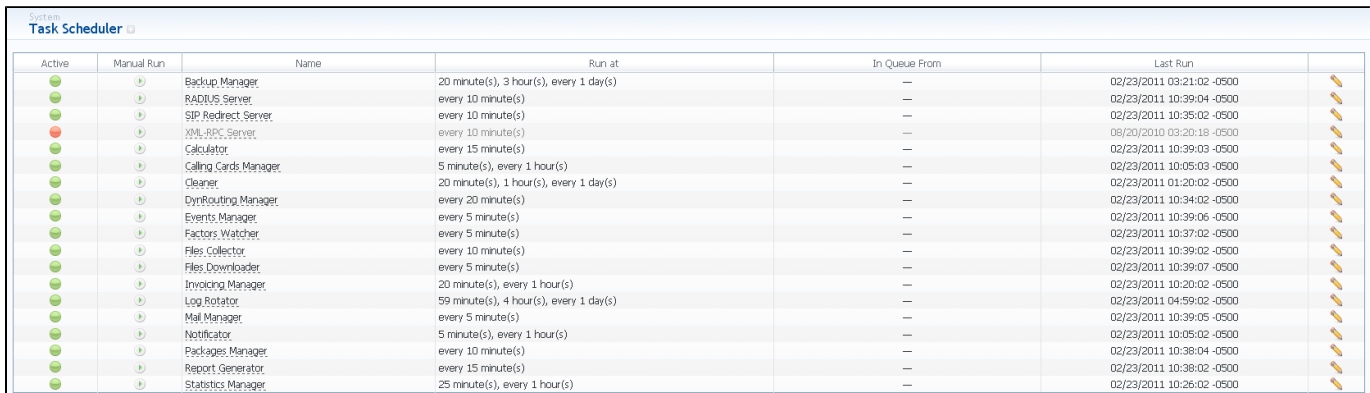
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Task Scheduler

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)	—	02/23/2011 03:21:02 -0500
		RADIUS Server	every 10 minute(s)	—	02/23/2011 10:39:04 -0500
		SIP Redirect Server	every 10 minute(s)	—	02/23/2011 10:35:02 -0500
		XML-RPC Server	every 10 minute(s)	—	08/20/2010 03:20:18 -0500
		Calculator	every 15 minute(s)	—	02/23/2011 10:39:03 -0500
		Calling Cards Manager	5 minute(s), every 1 hour(s)	—	02/23/2011 10:05:03 -0500
		Cleaner	20 minute(s), 1 hour(s), every 1 day(s)	—	02/23/2011 01:20:02 -0500
		DynRouting Manager	every 20 minute(s)	—	02/23/2011 10:34:02 -0500
		Events Manager	every 5 minute(s)	—	02/23/2011 10:39:06 -0500
		Factors Watcher	every 5 minute(s)	—	02/23/2011 10:37:02 -0500
		Files Collector	every 10 minute(s)	—	02/23/2011 10:39:02 -0500
		Files Downloader	every 5 minute(s)	—	02/23/2011 10:39:07 -0500
		Invoicing Manager	20 minute(s), every 1 hour(s)	—	02/23/2011 10:20:02 -0500
		Log Rotator	59 minute(s), 4 hour(s), every 1 day(s)	—	02/23/2011 04:59:02 -0500
		Mail Manager	every 5 minute(s)	—	02/23/2011 10:39:05 -0500
		Notifier	5 minute(s), every 1 hour(s)	—	02/23/2011 10:05:02 -0500
		Packages Manager	every 10 minute(s)	—	02/23/2011 10:38:04 -0500
		Report Generator	every 15 minute(s)	—	02/23/2011 10:38:02 -0500
		Statistics Manager	25 minute(s), every 1 hour(s)	—	02/23/2011 10:26:02 -0500

- **Backup Manager** – utility that manages system backup processes;
- **RADIUS Server** – RADIUS server process;
- **SIP Redirect Server** – SIP Redirect server process;
- **Cache Manager** – Cache Manager process;
- **XML-RPC Server** – XML-RPC server process;
- **Calculator** – utility that processes all data collected from CDR-files;
- **Calling Card Manager** – *Calling Cards* manager process;
- **Cleaner** – utility that automatically cleans old messages from *Events Log* section;
- **DynRouting Manager** – utility that creates routing tables used in Dynamic Routing feature;
- **Events Manager** – process that sends events to e-mails according to *Events Config*;
- **Factors Watcher** – utility that controls *Factors Watcher* tool;
- **Files Collector** – utility that controls file collectors;
- **Files Downloader** – utility that automatically downloads cdr-files from switch host;
- **Invoicing Manager** – utility that manages the autoinvoicing feature;
- **Log Rotator** – utility that controls log-files;
- **Mail Manager**– sends e-mails from mail queue (invoices, notifications etc);
- **Notifier** – notifies in case of low balance or HDD space events;
- **Packages Manager** – utility that manages your packages;
- **Report Generator** – utility that manages data generation for reports;
- **Statistics Manager** – utility that manages statistics packages.

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 its 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.

Users

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

Screenshot: Users section main window

Active	Login	Reseller	Full name	Last Login		
	admin Administrator	all companies	Administrator	10/01/2010 11:35:15 +0300 ID: 93.75.152.35		
	alexnd Resellers	KPN1		04/29/2010 16:37:47 +0300 ID: 94.247.224.226		
	asd Resellers	Äpfel UTF8	asd	09/26/2010 12:16:34 +0300 ID: 94.247.224.226		
	billbery_xmirpc Administrator	all companies		05/22/2010 21:01:02 +0300 ID: 94.247.224.66		
	dsadas Monitoring	Company Name1		never logged in yet		
	fiore Administrator	Testing_reseller1		03/31/2010 15:24:37 +0300 ID: 94.247.224.226		
	layer Resellers	Äpfel UTF8		02/25/2010 16:07:12 +0300 ID: 94.247.224.226		
	login Administrator	Company Name1	fulname	10/05/2009 13:46:47 +0300 ID: 94.247.224.226		
	res Resellers	Äpfel UTF8		05/20/2010 17:05:19 +0300 ID: 94.247.224.226		
	test Administrator	Company Name1	Test	09/28/2010 10:04:54 +0300 ID: 69.75.36.134		

You can add new user by pressing "Add 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"). 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.



Tip: Each user can have multiple roles.

Roles

This section allows to specify access rights for different sections of the system.

To add a new role, press *"Add role"* button.

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

Screenshot: Adding new role

Editing role

Administrator

Name: Administrator

Default module: Management / Clients

Entries

Name	Access Permissions
Management / Clients	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Management / Rate Tables	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Management / Invoices	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Management / Transactions	<input checked="" type="checkbox"/> Execute <input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Management / Mutual Settlements	<input checked="" type="checkbox"/> Execute
Management / Resellers	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Retail / Calling Cards	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Retail / Top-up Cards	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Retail / Call Shops	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Retail / Products	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Statistics / Summary Report	<input checked="" type="checkbox"/> Billing data <input checked="" type="checkbox"/> Execute
Statistics / Orig-Term Report	<input checked="" type="checkbox"/> Billing data <input checked="" type="checkbox"/> Execute
Statistics / LCR Lists	<input checked="" type="checkbox"/> Execute
Statistics / CDRs List	<input checked="" type="checkbox"/> Execute
Statistics / Disconnect Codes	<input checked="" type="checkbox"/> Execute
Statistics / Mismatches Report	<input checked="" type="checkbox"/> Execute
Statistics / Calls Rerating	<input checked="" type="checkbox"/> Execute
Statistics / Archive Management	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Tools / Rates Generator	<input checked="" type="checkbox"/> Execute
Tools / Rates Analysis	<input checked="" type="checkbox"/> Execute
Tools / Active Calls	<input checked="" type="checkbox"/> Execute
Tools / Factors Watch	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Routing / Routing Plans	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Routing / Routing Analysis	<input checked="" type="checkbox"/> Execute
Routing / DR Policies	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Configuration / Code Decks	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Configuration / Currencies	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Configuration / Payment Terms	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Configuration / Payment Gateways	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Configuration / Time Profiles	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Configuration / Client Groups	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Configuration / VoIP Hosts	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
Configuration / Settings	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
System / Events	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
System / System Status	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write
System / Task Scheduler	<input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write

System / Tasks Schedule	<input checked="" type="checkbox"/> Read	<input checked="" type="checkbox"/> Write
System / Users	<input checked="" type="checkbox"/> Read	<input checked="" type="checkbox"/> Write
System / Roles	<input checked="" type="checkbox"/> Read	<input checked="" type="checkbox"/> Write
System / Get Support	<input checked="" type="checkbox"/> Execute	
System / Change Password	<input checked="" type="checkbox"/> Execute	
System / About	<input checked="" type="checkbox"/> Execute	

- **Checkbox “Read”** – allows/forbids read permission;
- **Checkbox “Write”** – allows/forbids edit permission;
- **Checkbox “Execute”** – allows/forbids system services execution;
- **Default module** – specifies a default section, that will be displayed when you login into system.



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).

Password Change and Logout

You can change current password by using *Change Password* menu.

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.

You can logout from system by using *Logout* menu.

Customer's Portal

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

Customer logs into his control panel by typing 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:

- **Management** – allows viewing of client and balance information (*Client Info* subsection), call rates for current client (*Rates* subsection), sent invoices (*Invoices* subsection) and topping up one's balance (*Payment Gateways* subsection);
- **Statistics** – allows viewing of client's own statistics – summary (*Summary Report*), detailed (*CDRs List*) and accounting (*Balance Report*) reports.

Password change procedure is same as for administrative interface user.

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