Factors Watcher

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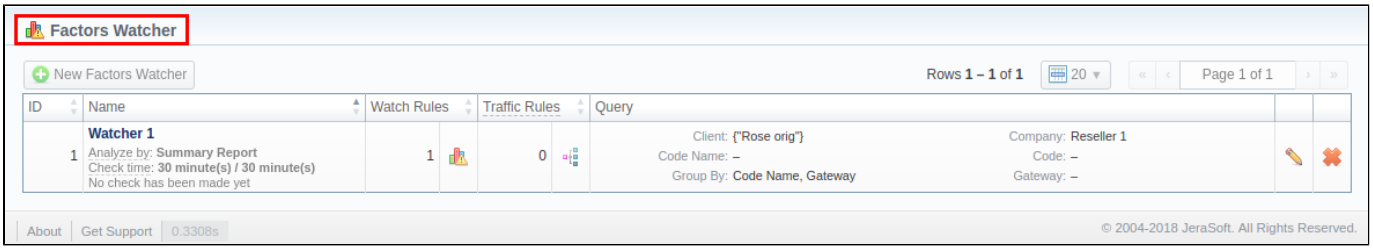
Factors Watcher List

This section represents a built-in tool to monitor statistics and generate alerts, as well as block numbers, codes/code names, destinations, clients, or accounts if some conditions are met. The section is presented in the form of a table with the following columns:

Screenshot: Factors Watcher main section



Column	Description
ID	Identification number of factors watcher
Name	Name of a factors watcher
Watch Rule	Total number of watch rules within a factors watcher
Presets	Total amount of traffic rules, created by a factors watcher
Query	Factors watcher query

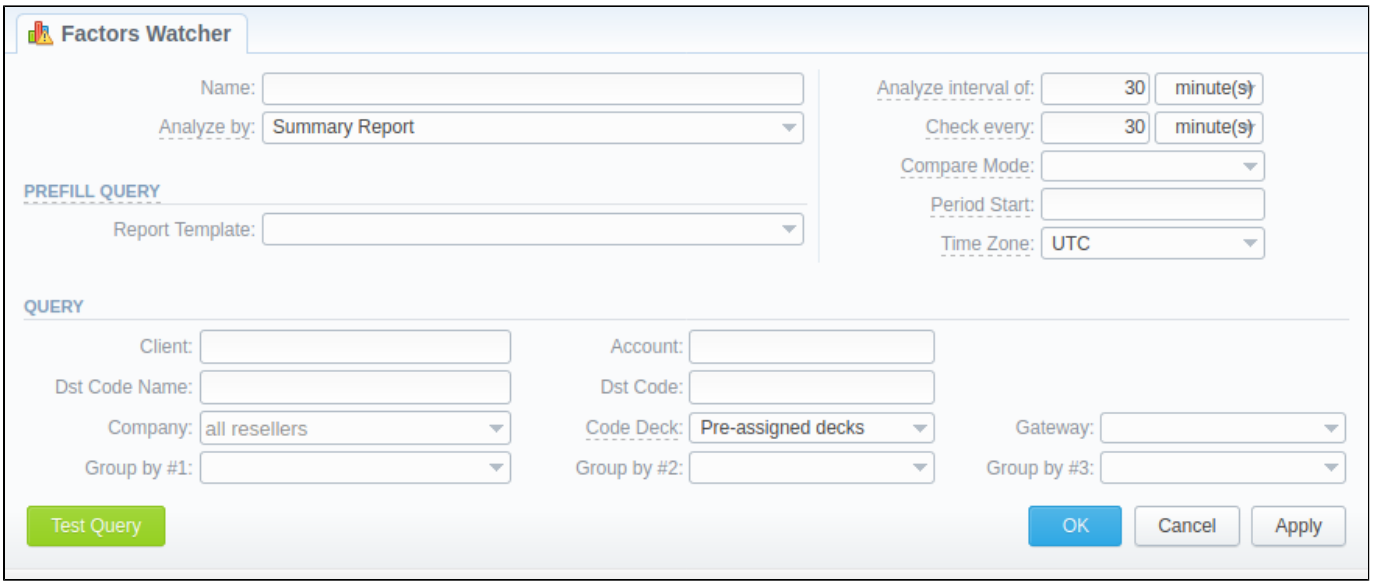
Functional buttons/icons, presented in the section, are as follows:

Icon	Description
	Allows editing existing watch rules
	Allows viewing traffic rules, created by a factors watcher
	Allows editing a factors watcher
	Allows deleting a factors watcher

Creating a New Factors Watcher

The tool is based on periodical queries in the **Summary** or **xDRs List** sections. To create a new query, click the **New Factors Watcher** button and specify parameters in the following form:

Screenshot: Adding a New Factors Watcher



Field	Description
Name	Factors watcher's name. This field is mandatory. The name must be no longer than 128 symbols.
Analyze by	Select a report (**Summary** or **xDRs List**), a new factors watcher will be based on Different reports provide a different set of parameters that are available for monitoring. For instance, **xDRs List** allows you to work with service sources (phone numbers, data) while **Summary report** allows such operations with ACD and ASR.
Report Template	Specify the template for further usage (optional) **Attention** Please note that the system enables to set a limited number of parameters overridden from the assigned template. For example: If there are 2 or more clients assigned to the respective template, the system will use the first client for Factors Watcher settings, all others will be ignored.
Analyze Interval of, min	Interval of time to check. Please note, this option checks **a current period, not the past hour.**
Check Every, min	Frequency of checks, performed by a factors watcher
Compare Mode	This period is used to compare the results of different intervals. It deducts a specified period from the ***Period Start*** date, then takes the statistics according to the ***Analyse interval of*** value and the date calculated above. The options here are: • ***Previous Period*** • ***Previous Day*** • ***Previous Week*** • ***Previous Month*** • ***Previous Year***
Period Start	Enter the specific time to set a factors watcher starting date
Timezone	Specify a timezone that will be used for reports queries/blocking routes
Query information block	**Indicate the query fields that will be used for generating a selected type of report**

Client	Select a client. You can specify multiple clients. **Attention** If you specify a client(s), the ***Account*** field becomes unavailable and vice versa.
Account	Select a target client's account
Code Name	Indicate a code name **Attention** The ***Code*** and ***Code Name*** fields are mutually exclusive
Code	Define the code
Company	Specify a Reseller
Code Deck	Indicate a target code deck
Gateway	Select a respective gateway
Group by #	Group query by a selected parameter (***client, account, code name, code*** or ***gateway***). Pay attention that based on selected parameters, respective ***Action*** options will be available. For instance, if you group by ***Code***, in the rule settings you will have the ***Block Code*** option and so on.
Test Query button	Click on this button to perform a test query in the Summary or xDRs List Report for the period, specified in the ***Check Every*** and ***Analyze Interval of*** fields

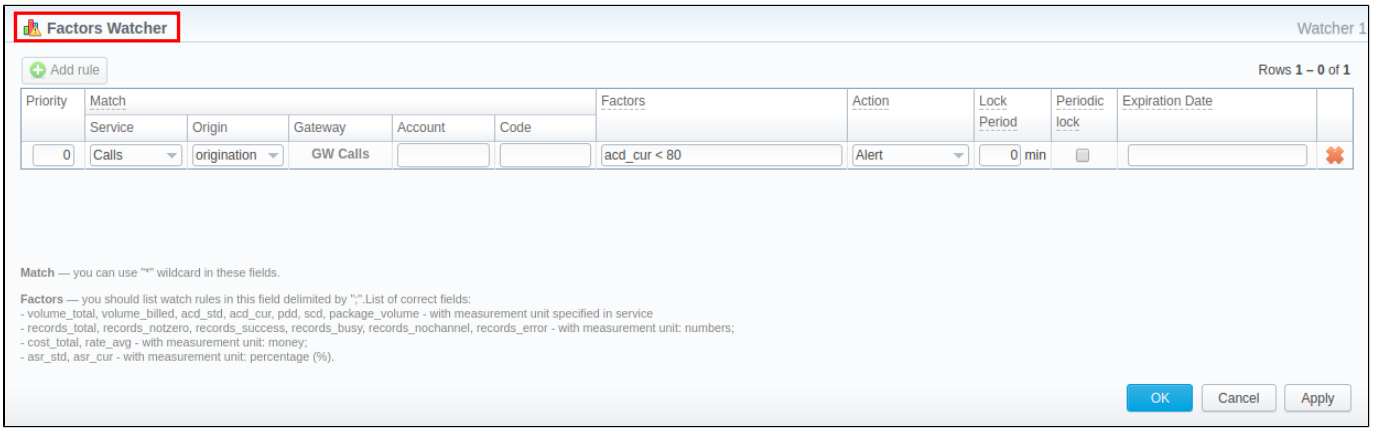
When you click **OK**, the new factors watcher will be created. You can edit the properties of this watcher later by clicking the edit icon.

Configuring Watch Rules

Next, you need to configure the watcher rules – parameters, under which conditions are monitored. To do this:

1. choose the already existed Factors Watcher from the list or create a new rule;
2. click on the name of the Factors Watcher or the **watch rule** icon;
3. in the appeared window, click the **Add Rule** button and fill in the following fields:

Screenshot: Editing Factors Watcher rules



Field	Description	
Priority	Define a priority of rules execution if they have a similar ***Match*** parameter	
Match	A set of parameters that are used as a basis for checks	
	Service	Determine the type of service (e.g., ***calls***, ***SMSs***, ***data***)

	Origin	Type of route to check (***Origination/Termination***)
	Code Name	Indicate the code name to apply a rule to
	Gateways	Specify the gateway to apply a rule to

Tip

To create a temporary rule that will override other rules with the same match parameters, you need to set up the rule with the highest priority and specify an appropriate ***Expiration Date***. Therefore, the existed multiple rules with the same match parameters will override each other and the rule with the highest priority will be applied.

Factors

Enter factors that will be applied to a current rule.

Parameters must be listed with a **semi-colon *";"* as a delimiting symbol.**

The list of parameters available for usage:

- **volume_total, volume_billed, acd_std, acd_cur, pdd, scd, package_volume** - with a measurement unit specified in the service
- **records_total, records_notzero, records_success, records_busy, records_nochannel, records_error** - with a measurement unit: numbers;
- **cost_total, rate_avg** - with a measurement unit: money;
- **asr_std, asr_cur** - with a measurement unit: percentage (%).

For example, if you enter ***total_volume > 100***, it means that when the total event volume (e.g., call time) count for respective match parameters goes over 100 (here - minutes), the system will create an alert.

It's possible to add a factors watcher rule with negative values. For example, ***total_cost < -10***.

Factors with a reference to the side-by-side reports:

You can adjust these factors on your own, using the next formula and pre-existing factors mentioned above: ***factors_name_1*** - value for the first period; ***factors_name_2*** - value for the second period; ***factors_name_diff*** - the difference between periods.

For example: **total_cost_1** (of the 1st period), **total_cost_2** (of the 2nd period), **total_cost_diff** (difference in %).

Tip

Users can add the Factors Watcher based on the side-by-side Summary Report. All you need to do is:

- click the **New Factors Watcher** button;
- fill in the ***Name*** field and others according to your needs;
- specify intervals in the next fields: ***Analyze Interval of***, ***Period Start*** and ***Period Offset***;
- click the **Test Query** button.

Action

An action that must be taken if a matched rule is found.

There are respective options: ***Alert, Block Code Name/Account/Client***
When one of these options is applied, the message will be shown in the **Events log** section.

Attention

The ***Block Code Name/Client/Account*** options will be invisible if the ***Group By #*** field in factors watcher rule is empty. If you group by the ***Client***, the ***Block Account*** option won't be visible in the drop-down list of the ***Action*** field.

Lock Period	Defines the lockout time in minutes for the analyzed route in case of a block action (0 value means infinite lockout)
Periodic Lock	If enabled, the rule will expire at the end of a period specified in the ***Analyze interval of*** field in the Watcher settings. Please note, that this option has a higher priority than the ***Expiration Date***.
Expiration Date	Specify the date when the rule must be automatically deleted

⚠ **Attention**

Please note that the **set of rules** in the ***Action*** field depends on how many parameters you defined in the ***Group by #*** field when a current query was created.

The **Block Code** option is available only if you set respective grouping in the factors watcher settings. For example, if you defined code in the query, you will be able to block codes in watcher rules, etc.