

Traffic Processing

In this article

- [Advanced Search](#)
- [Creating a New Traffic Processing Rule](#)
 - [Tip](#)
- [Rules Import](#)
- [Rules Export](#)
- [Knowledge Base Articles](#)

Section overview

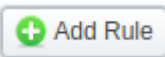
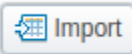





This section allows a user to configure and perform number translations. Here you can add and remove rules for traffic processing. The section includes 2 tabs: **Traffic Processing** and **Orig/Term Rules**:

Screenshot: *Traffic Processing* section


ID	Filters	Action	Notes / Expiry Date / Created By	Order
27	Stage: After Client Client: Vendor C Account: term_accC Dst Match: *		Created By: admin - 03/31/2021	2
36	Client: Customer C Src Match: *380/*\$	Add Tags: origination group 1	Created By: admin - 03/31/2021	2
38	Client: Customer C Account: orig_accC Src Match: *972/*\$	Add Tags: Zone 3, A-numbers	Created By: admin - 03/31/2021	2
71	Client: Customer B		Created By: admin - 03/31/2021	2
56	Stage: After Rate Client: Customer B Dst Code: 44	Deny	Created By: admin - 03/31/2021	1

Column Name	Description
ID	Rule's identification number
Stage	Stage of a rule (the rules are grouped by following stages: <i>Initial</i> , <i>After Client</i> , <i>After Rate</i> , <i>After Routing</i>)
Filters	Depending on rule parameters, a table can display the following scope of details: <ul style="list-style-type: none">• Name of service, the rule is created for• Gateway, specified in a rule• Tag(s), indicated in a rule• Client's name, specified in a rule• Client's account, defined in a rule• Indicated Code• POSIX regular expression for Src number (Src Match)• POSIX regular expression for Dst number (Dst Match)• Src Prefixes (Src P Any/Src P Not)• Src Prefixes Names (Src PN Any/Src PN Not)• Dst Prefixes (Dst P Any/Dst P Not)• Dst Prefixes Names (Dst PN Any/Dst PN Not)
Action	Depending on rule parameters, a table can display the following scope of details: <ul style="list-style-type: none">• Replacement for a matched rule for Src number (Src)• Replacement for a matched rule for Dst number (Dst)• List of tags added during traffic processing rule execution• Deny plank for blocking rules• LNP/MNP db specification with LNP direction and Revert LNP indication (if enabled)• Any blocked termination Clients/Accounts from the Routing Blocks section
Notes / Expiry Date / Created By	Depending on rule parameters, a table can display the following scope of details: <ul style="list-style-type: none">• Notes, specified in a rule• Rule's Expiry date• User name and time, when a rule was created/edited
Order	Specified order for rule execution

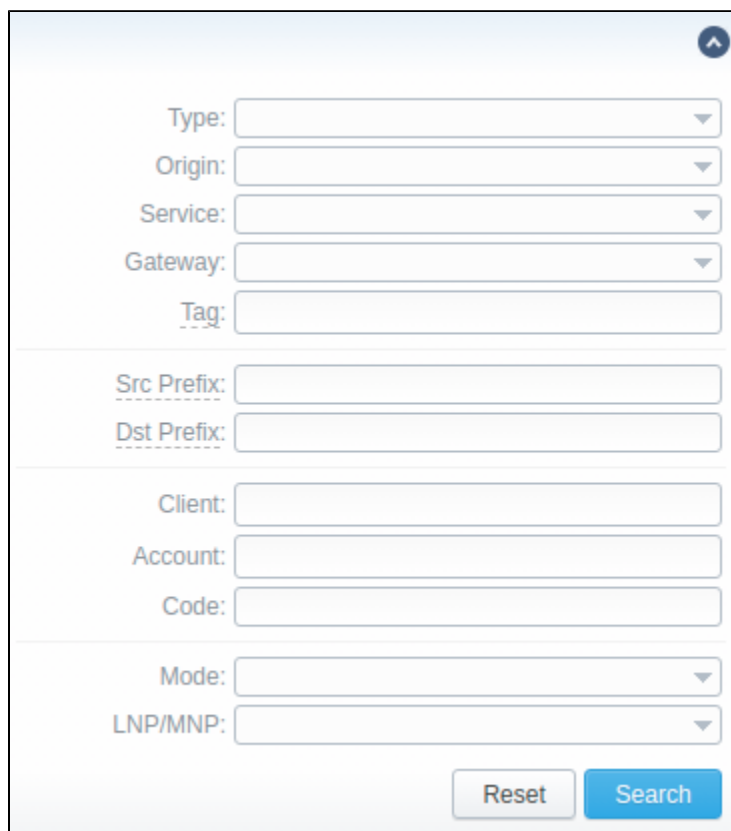
Functional **buttons/icons** presented in the section are as follows:

Button/Icon	Description
	Allows creating a new traffic processing rule
	Allows importing a .csv file with a traffic processing rule(s)
	Allows exporting a current list of rules in a .csv format
	Indicates that a rule origin is origination
	Indicates that a rule origin is termination
	Allows editing existing rules in a section list
	Allows deleting a traffic processing rule from the system

Advanced Search

In the top right corner of the section above the table, an **Advanced Search** drop-down menu is located. By clicking on a blue downward arrow  icon, a drop-down menu with the following structure is displayed:

Screenshot: Advanced Search drop-down menu



The screenshot shows a search form with the following fields and controls:

- Type:** Dropdown menu
- Origin:** Dropdown menu
- Service:** Dropdown menu
- Gateway:** Dropdown menu
- Tag:** Text input field
- Src Prefix:** Text input field
- Dst Prefix:** Text input field
- Client:** Text input field
- Account:** Text input field
- Code:** Text input field
- Mode:** Dropdown menu
- LNP/MNP:** Dropdown menu
- Reset** button
- Search** button

To apply the specified search criteria, click **Search**; to cancel the applied parameters, click **Reset**.

Creating a New Traffic Processing Rule

To perform a number translation, click the **Add Rule** button and fill in the following fields:

Screenshot: New Traffic Processing rule

Traffic Processing

GENERAL

Stage: Initial Order: 1
Origin: origination
Company: all resellers
Notes:
Expiry Date:
Src Deck: DEFAULT
Dst Deck: DEFAULT

FILTERS

No Filters

PARTIES ID TRANSLATIONS

Type: Src
Order:
Match:
Replace:

Add Item

ACTIONS

Mode: Allow
Add Tags: Set Service:

LNP / JURISDICTION

LNP/MNP: Revert LNP: Disabled
LNP Party: Dst Party ID US NANP: Disabled

ROUTING BLOCKS

Block Clients:
Block Accounts:

OK Cancel Apply

Information block	Field	Description
General	Stage	<p>Specifies at what stage a current translation rule will be applied:</p> <ul style="list-style-type: none"> Initial - execute this rule before a Client is identified After Client - execute this rule after client identification but before rate identification After Rate - execute this rule after rate identification but before routing After Routing - execute this rule after routing <div> <div>Tip</div> <p>TP rules' stages affecting RATING:</p> <p>Origination part:</p> <ol style="list-style-type: none"> Origination Initial rules: Origination After Client rules: Origination After Rate rules. <p>Termination part:</p> <ol style="list-style-type: none"> Termination Initial rules: Termination After Client rules: Termination After Rate rules. <p>TP rules' stages affecting ROUTING:</p> <ol style="list-style-type: none"> Origination Initial rules: Origination After Client rules: Origination After Rate rules: Termination After Routing rules. <p>Therefore, any termination rule with stage Initial, After Client, and After Rate won't affect routing but will be used in rating.</p> </div>
	Order	<p>Sets rules ordering that works within the same rule Stage.</p> <div> <div>Attention</div> <p>Note that this field indicates the order of rules execution only within a specified stage. It means that a rule with the Initial stage and order 1 will be executed before any other rule of the same stage with order 2. However, such rule will be executed prior to a rule with the After Rate stage and order 0, even though the latter has a higher order, due to the fact that Initial is the 1st on the stages list.</p> </div>
	Origin	<p>Specify the event origin:</p> <ul style="list-style-type: none"> Origination Termination

Company	Specify a Reseller for this rule to be executed under. Default - <i>all resellers</i>
Notes	Specify additional information about a rule
Expiry Date	Define a date when this rule will expire and will be removed from the system
Src Deck	Identify a code deck that will be used for Src codes or code names filtering
Dst Deck	Identify a code deck that will be used for Dst codes or code names filtering

Filters

Select the required parameters for a traffic processing rule on the **Filters** menu. To cancel any filter, click on the delete  sign next to its name.

You can start a **quick search** by typing filters' names in the field at the top of the **Filters** menu.



Tip

If, for instance, the **Client** filter is empty, it means that this rule will implicate all clients.

General



Service ID	Select a target from the drop-down list of all services, presented in the Services section of your JeraSoft Billing
Gateway	Select a respective VoIP gateway, for which rule is applied, from the drop-down list
Tags (Any)	A rule will work if an event has at least one of the tags, specified in this field
Tags (All)	A rule will work if an event has all tags, specified in this field
Tags (Not)	A rule will work if an event has no tags, specified in this field

Src Party ID

Src (Match)	In this field you may indicate POSIX regular expressions syntax, by which a number will be analyzed.
Src Prefixes (Any)	A rule will work if an event has at least one of the Src prefixes (e.g., 010, 810), specified in this field
Src Prefixes (Not)	A rule will work if an event has no Src prefixes (e.g., 010, 810), specified in this field
Src Prefixes Names (Any)	A rule will work if an event has at least one of the Src prefixes names (e.g., vodafone), specified in this field
Src Prefixes Names (Not)	A rule will work if an event has no Src prefixes names (e.g., vodafone), specified in this field

Dst Party ID

Dst (Match)	In this field, you may indicate POSIX regular expressions syntax, by which a number will be analyzed.
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	Dst Prefixes (Any)	A rule will work if an event has at least one of the Dst prefixes (e.g., 010, 810), specified in this field
	Dst Prefixes (Not)	A rule will work if an event has no Dst prefixes (e.g., 010, 810), specified in this field
	Dst Prefixes Names (Any)	A rule will work if an event has at least one of the Dst prefixes names (e.g., vodafone), specified in this field
	Dst Prefixes Names (Not)	A rule will work if an event has no Dst prefixes names (e.g., vodafone), specified in this field
	Client	
	Client	Specify a respective client <div>  Attention Please be advised that any traffic processing rule can have either the Client or Account field. </div>
	Account	Specify a respective account
	Dst Code	Specify a destination code
	Dst Code Name	Specify a destination code name
	Src Code	Specify a source code
	Src Code Name	Specify a source code name
Parties ID Translations	Type	Define a type of translation: <ul style="list-style-type: none"> • Src • Dst
	Order	Specify the order of translation <div>  Tip If you need to do multiple translations for the same call flow, it's better to create them all in one rule than to create multiple rules for the same type (time) of translations. That's where ordering would be useful. </div>
	Match	In this field, you may indicate POSIX regular expressions syntax (see best practice example below), by which a number will be analyzed. If an expression matches the number, the translation will occur in respective settings in the Replace field.
	Replace	Replacement for a matched rule.
Actions	Mode	Defines an action that will be executed if a traffic rule matches: <ul style="list-style-type: none"> • Allow - allow a current event to proceed. Stop further traffic processing rules within this type of rule; • Allow and Continue - allow a current event to proceed. Search for the next traffic rule; • Deny - deny a current event.

	Add Tags	Here you can add tags that will be added for events matching this rule
	Set Service	Allows to change a specified service to another one while processing them
LNP / Jurisdiction	LNP /MNP	<p>Define a provider for the LNP/MNP service, which will be dipped for translation</p> <div> <p>⚠ Attention</p> <p>In the VCS 3.17.0, a new feature regarding TJA database has been added. Starting from this version, while creating a new rule, in the LNP/MNP field, a user can select either tja.ee (Routing Number) or tja.ee (Owner). The difference is as follows:</p> <ul style="list-style-type: none"> tja.ee (Routing Number) - if a traffic processing rule executes, 372+Original Number will be substituted by 372+Routing Number, specified in the TJA database. tja.ee (Owner) - if a traffic processing rule executes, 372+Original number will remain unchanged. Instead, a Dyna mic Tag indicating an owner of the number will be added to the call. <p>Please find more about TJA database here.</p> </div>
	Revert LNP	<p>Allows returning original numbers to vendors after routing:</p> <ul style="list-style-type: none"> Enabled Disabled
	LNP Party	Define, which Party ID(s) (Src, Dst, or both) will be used for LNP dipping. To enable this feature, you need to specify the LNP/MNP field.
	US NANP	<p>Define if NANP processing will be used for LNP dipping:</p> <ul style="list-style-type: none"> Enabled Disabled
Routing Blocks	Block Clients	Specify, which termination Clients to block for the originator, specified in the Filters block
	Block Accounts	Specify, which termination Accounts to block for the originator, specified in the Filters block

✔ Best Practice Example

To get a better understanding of how the **Src/Dst Match** and **Src/Dst Replace** fields work, let's consider the following example:

If our Src/Dst number is **123#456**, the **Src/Dst Match** field is **^123#(.*)\$** and the **Src/Dst Replace** field is **789\1**, the resulting number will be **789456**. That's because the **^123#(.*)\$** expression tells the system that from **123#456** number it must remember only the **(.*)** part, which stands for **456**. Now, in the **Src/Dst Replace** field we have **789\1**, which means that instead of **123#456**, it must insert **789** + add **\1** that equals **(.*)**. Therefore, our resulting number will be **789+456=789456**. These **translation rules use the PostgreSQL regular expressions syntax** (based on POSIX regex with some extensions). For more information, please refer to the PostgreSQL documentation portal.

In addition, in the **Src/Dst Replace** field you can insert random number with fixed digit length using the **\$rnd(xxx-yyy)\$** variable, where **xxx** - start number and **yyy** - end number of the range. For example, **\$rnd(050-950)\$** will be replaced by a **3-digit random number from 50 to 950**.

Rules Import

A user can import a **.csv** file containing a list of traffic processing rules. To import the file, click the **Import** button and a pop-up window with the following structure will appear:

Screenshot: Traffic processing rule import

Traffic Processing

FILE PROCESS

Select file for import:

Choose File

traffic_rules_list_7-04-2018.csv

Fields Delimiter:

autodetect

Process »

IMPORT CONFIG

Import Mode:

Keep previous data

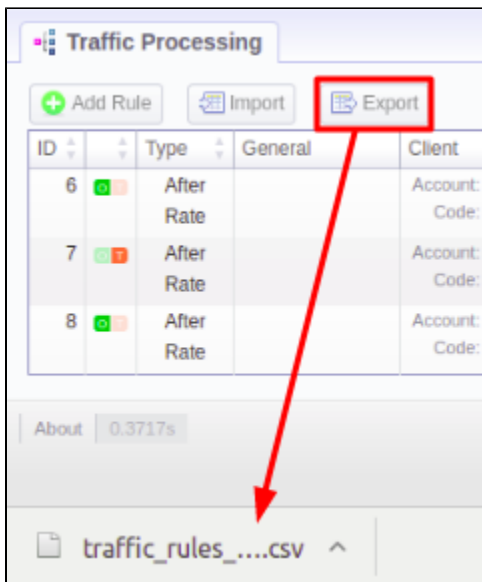
Information block	Field	Description
File Process	Select a file for import	Select a .csv file to import a traffic processing rule from
	Fields Delimiter	Specify a delimiter symbol here. The possible options are: <ul style="list-style-type: none"> • Autodetect • , • ; • Tab By default, the Autodetect option is selected.
Import Config	Import Mode	Specify what to do with the current traffic processing rules: <ul style="list-style-type: none"> • Keep previous data - new rules will be added to the old ones • Purge all other rules - old rules will be deleted and substituted by the new ones. By default, the Keep previous data option is selected.

When all fields are filled in, click **Process>>**. You will be transferred to the second step to indicate the default values in respective fields and specify rows and columns. To finish importing, click **Process>>** again.

Rules Export

By clicking on the **Export** button you can download a current list of rules in a **.csv** file.

Screenshot: Rules export



Knowledge Base Articles

Error rendering macro 'contentbylabel'

parameters should not be empty