

Traffic Processing

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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	Stage	General	Client	Prefixes	Action	User	Order
1	After Client		Account: account 1			admin 06/12/2020	1
3	After Rate		Account: account 3	Dst Match: 56		admin 06/12/2020	1
2	After Client		Client: client 2	Src Match: 34		admin 06/12/2020	1

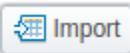
Column Name	Description
ID	Rules identification number
Type	Type of a rule
General	Depending on rule parameters, a table can display the following scope of details: <ul style="list-style-type: none"> • Name of service, the rule is created for • Gateway, specified in a rule • Tag(s), indicated in a rule
Client	Depending on rule parameters, a table can display the following scope of details: <ul style="list-style-type: none"> • Client's name, specified in a rule • Client's account, defined in a rule • Indicated Code
Prefixes	Depending on rule parameters, a table can display the following scope of details: <ul style="list-style-type: none"> • 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
User	User name and time, when a rule was created/edited
Order	Specified order for rule execution

Screenshot: *Orig/Term Rules section*

ID	Orig	Term	Code	Action	Notes	Expiration Date	User
4, 5	Client: client 2	Client: client 3	22	Deny		06/12/2020 10:03:28 +0000	admin 06/12/2020
6, 7	Client: client 3	Client: client 2	12	Allow and Continue		06/12/2020 10:03:28 +0000	admin 06/12/2020

Column Name	Description
ID	Rules identification number
Orig	Depending on rule parameters, a table can display the following scope of details: <ul style="list-style-type: none"> • Origination Client • Origination Account
Term	Depending on rule parameters, a table can display the following scope of details: <ul style="list-style-type: none"> • Termination Client • Termination Account
Code	Specify a destination code (use * as a wildcard)
Action	You can set up the following Actions for the rule: <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.
Notes	Extra notes for the rule.
Expiration Date	Defines the date when the rule expires.
User	User name and time, when a rule was created/edited

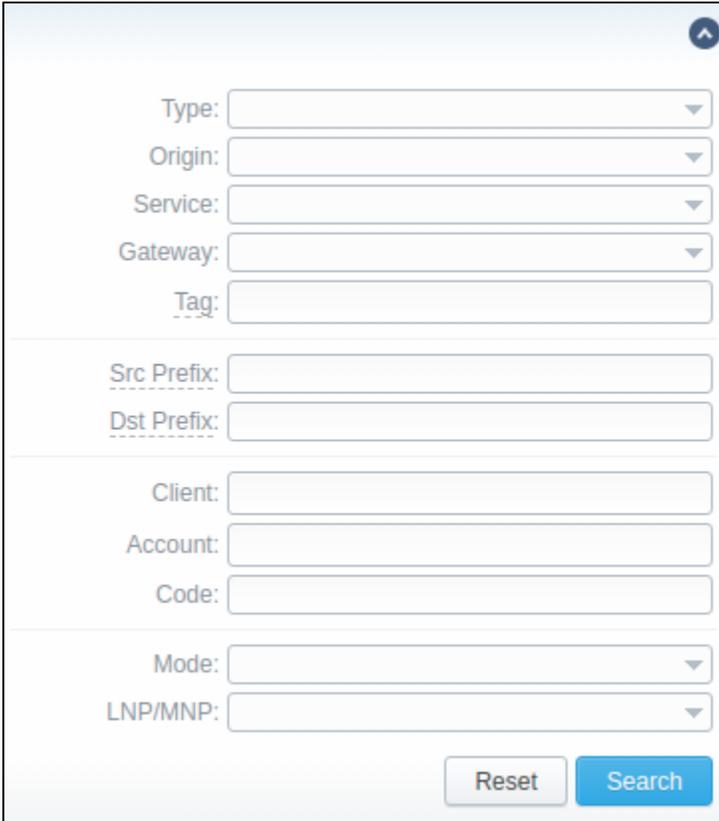
Functional **buttons/icons** presented in the section are as follows:

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
	Indicates the Allow action of a rule
	Indicates the Allow and Continue action of a rule
	Indicates the Deny action of a rule
	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:
- Origin:
- Service:
- Gateway:
- Tag:
- Src Prefix:
- Dst Prefix:
- Client:
- Account:
- Code:
- Mode:
- LNP/MNP:

At the bottom of the form, there are two buttons: **Reset** and **Search**.

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

Type: Origin:

Src Code Deck: Notes:

Dst Code Deck:

Order: Expiration Date:

MATCH

- General
- Service
- Gateway
- Tags (any)
- Tags (all)
- Tags (not)
- Src Party ID

ACTION

Mode: Add Tags:

Src Replace: LNP/MNP:

Dst Replace: LNP Direction:

Set Service: NANP Processing:

Information block	Field	Description
General	Type	<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
	Src Code Deck	Identify a code deck that will be used for Src codes or code names filtering
	Dst Code Deck	Identify a code deck that will be used for Dst codes or code names filtering
	Order	<p>Sets rules ordering that works within the same rule Type.</p> <div style="background-color: yellow; padding: 5px;"> <p>! Attention</p> <p>Note that this field indicates the order of rules execution only within a specified type. It means that a rule with the Initial type and order 1 will be executed before any other rule of the same type with order 2. However, such rule will be executed prior to a rule with the After Rate type and order 0, even though the latter has a higher order, due to the fact that Initial is the 1st on the types list.</p> </div>

Origin	Specify the event origin: <ul style="list-style-type: none"> • Origination • Termination 																								
Notes	Specify additional informational about a rule																								
Expiration Date	Define a date when this rule will expire and will be removed from the system																								
Match	<p>Select the required parameters for a traffic processing rule on the Match menu. To cancel any filter, click on the delete  sign next to its name.</p> <p>You can start a quick search by typing filters' names in the field at the top of the Match menu.</p> <div data-bbox="293 531 1484 640" style="background-color: #e0ffe0; padding: 5px; border: 1px solid #c0ffc0;"> <p> Tip</p> <p>If, for instance, the Client filter is empty, it means that this rule will implicate all clients.</p> </div> <p>General</p> <table border="1" data-bbox="279 751 1497 1066"> <tr> <td data-bbox="279 751 370 793">Service</td> <td data-bbox="370 751 1497 793">Select a target from the drop-down list of all services, presented in the Services section of your JeraSoft Billing</td> </tr> <tr> <td data-bbox="279 793 370 856">Gateway</td> <td data-bbox="370 793 1497 856">Select a respective VoIP gateway, for which rule is applied, from the drop-down list</td> </tr> <tr> <td data-bbox="279 856 370 930">Tags (Any)</td> <td data-bbox="370 856 1497 930">A rule will work if an event has at least one of the tags, specified in this field</td> </tr> <tr> <td data-bbox="279 930 370 1003">Tags (All)</td> <td data-bbox="370 930 1497 1003">A rule will work if an event has all tags, specified in this field</td> </tr> <tr> <td data-bbox="279 1003 370 1066">Tags (Not)</td> <td data-bbox="370 1003 1497 1066">A rule will work if an event has no tags, specified in this field</td> </tr> </table> <p>Src Party ID</p> <table border="1" data-bbox="279 1129 1497 1703"> <tr> <td data-bbox="279 1129 370 1192">Src (Match)</td> <td data-bbox="370 1129 1497 1192">In this field you may indicate POSIX regular expressions syntax, by which a number will be analyzed. If an expression matches the number, the translation will occur in respective settings in the SRC Replace field.</td> </tr> <tr> <td data-bbox="279 1192 370 1308">Src Prefixes (Any)</td> <td data-bbox="370 1192 1497 1308">A rule will work if an event has at least one of the Src prefixes (e.g., 010, 810), specified in this field</td> </tr> <tr> <td data-bbox="279 1308 370 1423">Src Prefixes (Not)</td> <td data-bbox="370 1308 1497 1423">A rule will work if an event has no Src prefixes (e.g., 010, 810), specified in this field</td> </tr> <tr> <td data-bbox="279 1423 370 1560">Src Prefixes Names (Any)</td> <td data-bbox="370 1423 1497 1560">A rule will work if an event has at least one of the Src prefixes names (e.g., vodafone), specified in this field</td> </tr> <tr> <td data-bbox="279 1560 370 1703">Src Prefixes Names (Not)</td> <td data-bbox="370 1560 1497 1703">A rule will work if an event has no Src prefixes names (e.g., vodafone), specified in this field</td> </tr> </table> <p>Dst Party ID</p> <table border="1" data-bbox="279 1766 1497 1963"> <tr> <td data-bbox="279 1766 370 1850">Dst (Match)</td> <td data-bbox="370 1766 1497 1850">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 Dst Replace field.</td> </tr> <tr> <td data-bbox="279 1850 370 1963">Dst Prefixes (Any)</td> <td data-bbox="370 1850 1497 1963">A rule will work if an event has at least one of the Dst prefixes (e.g., 010, 810), specified in this field</td> </tr> </table>	Service	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 (Match)	In this field you may indicate POSIX regular expressions syntax, by which a number will be analyzed. If an expression matches the number, the translation will occur in respective settings in the SRC Replace field.	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 (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 Dst Replace field.	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
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	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 style="background-color: #ffff00; padding: 5px;"> <p> Attention</p> <p>Please be advised that any traffic processing rule can have either the Client or Account field.</p> </div>
	Account	Specify a respective account
	Code	Specify a destination code (use * as a wildcard)
Action	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.
	Src Replace	Replacement for a matched rule. For this field to work, the Src Match filter must be used in the Match information block.
	Dst Replace	Replacement for a matched rule. For this field to work, the Dst Match filter must be used in the Match information block.
	Set Service	Allows to change a specified service to another one while processing them
	Add Tags	Here you can add tags that will be added for events matching this rule
	LNP/MNP	Define a provider for the LNP/MNP service, which will be dipped for translation <div style="background-color: #ffff00; padding: 5px;"> <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 Dynamic Tag indicating an owner of the number will be added to the call. <p>Please find more about TJA database here.</p> </div>
	LNP Direction	Define, which Party ID(s) (Src, Dst, or both) will be used for LNP dipping. To enable this feature, you need to specify the LN

NANP Processing	Define if NANP processing will be used for LNP dipping: <ul style="list-style-type: none"> • Enabled • Disabled
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Attention

Please be advised that after creation, the Traffic Processing Rule will be applied after the next run of the **Traffic Rules Manager**. Check its schedule in the [System Services](#) section.

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**.

Creating a new Orig/Term Rule

To perform a translation for a specific pair of **Originator** and **Terminator**, switch to the **Orig/Term Rules** tab, click the **Add Rule** button, and fill in the following fields:

Screenshot: New Orig/Term rule

Information block	Field	Description
General	Dst Code Deck	Identify a code deck that will be used for Dst codes or code names filtering
	Notes	Specify additional informational about a rule
	Expiration Date	Define a date when this rule will expire and will be removed from the system
Match	Select the required parameters for a traffic processing rule on the Match menu:	
	Orig Client	Specify a respective Origination client
	Orig Account	Specify a respective Origination account
	Term Client	Specify a respective Termination client
	Term Account	Specify a respective Termination account
	Dst Prefixes (any)	Specify a destination Code (use * as a wildcard). The field accepts multiple values

	Dst Prefixes Names (any) Specify a destination Code Name. The field accepts multiple values
Action	Defines an action that will be executed if a traffic rule matches: <ul style="list-style-type: none"> • Allow • Allow and Continue • Deny



Attention

Please be advised that after creation, the Orig/Term Rule will be applied after the next run of the **Traffic Rules Manager**. Check its schedule in the [System Services](#) section.

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

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

Traffic Processing

+ Add Rule Import **Export**

ID	Type	General	Client
6	After Rate		Account: Code:
7	After Rate		Account: Code:
8	After Rate		Account: Code:

About 0.3717s

traffic_rules_....csv ^

