

Traffic Processing

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Section overview

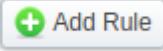
This section allows a user to configure and perform number translations. Here, you can add and remove rules for traffic processing. The section is presented in a form of a table of traffic processing rules with the following columns:

Screenshot: *Traffic Processing section*

ID	Type	General	Client	Prefixes	Action	User	Order
5	After Routing		Account: rose_orig	Src P Any: 1201, 1202, 1209		admin 04/18/2018	1
3	Initial	Service: SMS		Src Match: ^0(.*?)\$	Src: 2341 Tags: New Rule	admin 04/18/2018	1
4	After Rate	Service: Calls	Client: Rose orig	Dst Match: ^1201({3}).*	Dst: 12021test\$md(100-233)\$	admin 04/18/2018	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

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 downwards arrow  icon, a drop-down menu with the following structure is displayed:

Screenshot: Advanced Search drop-down menu

The screenshot shows a search criteria form with the following fields:

- Type:
- Origin:
- Service:
- Gateway:
- Tag:
- Src Prefix:
- Dst Prefix:
- Client:
- Account:
- Code:
- Mode:
- Tag Add:
- LNP/MNP:

At the bottom right, 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: Tags Add:

Src Replace: LNP/MNP:

Dst Replace: LNP Direction:

Set Service:

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: #ffff00; 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	<p>Specify the event origin:</p> <ul style="list-style-type: none"> • Origination • Termination
Notes	<p>Specify additional informational about a rule</p>
Expiration Date	<p>Define a date when this rule will expire and will be removed from the system</p>
Match	<p>On the Match menu, select required parameters for a traffic processing rule. 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 style="background-color: #c8e6c9; padding: 5px;"> <p> Tip</p> <p>If, for instance, the Client filter is empty, it means that this rule will implicate all clients.</p> </div>
General	
Service	<p>Select a target from the drop-down list of all services, presented in the Services section of your VCS</p>
Gateway	<p>Select a respective VoIP gateway, for which rule is applied, from the drop-down list</p>
Tags (Any)	<p>A rule will work if event has at least one of the tags, specified in this field</p>
Tags (All)	<p>A rule will work if event has all tags, specified in this field</p>
Tags (Not)	<p>A rule will work if event has no tags, specified in this field</p>
Src Party ID	
Src (Match)	<p>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</p>
Src Prefixes (Any)	<p>A rule will work if an event has at least one of the Src prefixes (e.g., 010, 810), specified in this field</p>
Src Prefixes (Not)	<p>A rule will work if an event has no Src prefixes (e.g., 010, 810), specified in this field</p>
Src Prefixes Names (Any)	<p>A rule will work if an event has at least one of the Src prefixes names (e.g., vodafone), specified in this field</p>

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 (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
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 style="background-color: yellow; padding: 5px; border: 1px solid black;"> <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	<p>Mode Defines an action that will be executed if a traffic rule matches:</p> <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. <p>Src Replace Replacement for a matched rule. For this field to work, the Src Match filter must be used in the Match information block.</p> <p>Dst Replace Replacement for a matched rule. For this field to work, the Dst Match filter must be used in the Match information block.</p> <p>Set Service Allows to change a specified service to another one while processing them</p> <p>Tags Add Here you can add tags that will be added for events matching this rule</p>

LNP /MNP	<p>Define a provider for the LNP/MNP service, which will be dipped for translation</p> <div style="background-color: #ffffcc; padding: 10px;"> <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	<p>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 P/MNP field.</p>

✔ 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

Now, a user can import a **.csv** file containing a list of traffic processing rules. To do so, 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: traffic_rules_list_7-04-2018.csv

Fields Delimiter:

IMPORT CONFIG

Import Mode:

Information block	Field	Description
File Process	Select a file for import	Select a .csv file to import a traffic processing rule from
	Fields Delimiter	<p>Specify a delimiter symbol here. The possible options are:</p> <ul style="list-style-type: none"> • Autodetect • , • ; • Tab <p>By default, the Autodetect option is selected.</p>

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 Purge all other rules option is selected.
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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

