

# 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 the form of a table of traffic processing rules with the following columns:

Screenshot: *Traffic Processing section*

Traffic Processing

Add Rule

Import

Export

Rows 1 – 3 of 3

20

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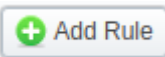
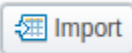
>

»

| ID | Type                                                    | General | Client                             | Prefixes | Action        | User                  | Order |             |             |
|----|---------------------------------------------------------|---------|------------------------------------|----------|---------------|-----------------------|-------|-------------|-------------|
| 6  | <div><div></div><div></div><div></div></div> After Rate |         | Account: Voxbone Client<br>Code: 1 |          | <div>▶</div>  | admin<br>10/23/2018   | 0     | <div></div> | <div></div> |
| 7  | <div><div></div><div></div><div></div></div> After Rate |         | Account: acc A<br>Code: 1          |          | <div>▶▶</div> | admin<br>10/23/2018   | 0     | <div></div> | <div></div> |
| 8  | <div><div></div><div></div><div></div></div> After Rate |         | Account: acc B<br>Code: 123        |          | <div>■</div>  | _system<br>10/24/2018 | 0     | <div></div> | <div></div> |

| 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"><li>• Name of <b>service</b> the rule is created for</li><li>• <b>Gateway</b> specified in a rule</li><li>• <b>Tag(s)</b> indicated in a rule</li></ul>                                                                                                                                                                                                                         |
| Client      | Depending on rule parameters, a table can display the following scope of details: <ul style="list-style-type: none"><li>• <b>Client's name</b> specified in a rule</li><li>• <b>Client's account</b> defined in a rule</li><li>• Indicated <b>Code</b></li></ul>                                                                                                                                                                                                                                    |
| Prefixes    | Depending on rule parameters, a table can display the following scope of details: <ul style="list-style-type: none"><li>• <b>POSIX regular expression</b> for Src number (Src Match)</li><li>• <b>POSIX regular expression</b> for Dst number (Dst Match)</li><li>• Src <b>Prefixes</b> (Src P Any/Src P Not)</li><li>• Src <b>Prefixes Names</b> (Src PN Any/Src PN Not)</li><li>• Dst <b>Prefixes</b> (Dst P Any/Dst P Not)</li><li>• Dst <b>Prefixes Names</b> (Dst PN Any/Dst PN Not)</li></ul> |
| Action      | Depending on rule parameters, a table can display the following scope of details: <ul style="list-style-type: none"><li>• <b>Replacement</b> for a matched rule for <b>Src number</b> (Src)</li><li>• <b>Replacement</b> for a matched rule for <b>Dst number</b> (Dst)</li><li>• <b>List of tags</b> added during traffic processing rule execution</li></ul>                                                                                                                                      |
| 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 <b>.csv</b> file with a traffic processing rule(s) |
|  | Allows exporting a current list of rules in a <b>.csv</b> format      |
|  | Indicates that a rule origin is <b>origination</b>                    |
|  | Indicates that a rule origin is <b>termination</b>                    |
|  | Indicates the <b>Allow</b> action of a rule                           |
|  | Indicates the <b>Allow and Continue</b> action of a rule              |
|  | Indicates the <b>Deny</b> 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*

Type:

Origin:

Service:

Gateway:

Tag:

Src Prefix:

Dst Prefix:

Client:

Account:

Code:

Mode:

LNP/MNP:

Reset

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: 

Initial

Origin: 

origination

Src Code Deck: 

DEFAULT

Notes:

Dst Code Deck: 

DEFAULT

Order: 

1

Expiration Date:

MATCH

General

Service

Gateway

Tags (any)

Tags (all)

Tags (not)

Src Party ID

ACTION

Mode: 

Allow

Add Tags:

Src Replace:

LNP/MNP:

Dst Replace:

LNP Direction: 

Dst Party ID

Set Service:

NANP Processing: 

Disabled

OK

Cancel

Apply

| Information block | Field         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General           | Type          | <div>Specifies <b>at what stage</b> a current translation rule will be applied:</div> <div><ul style="list-style-type: none"><li>• <b>Initial</b> - execute this rule before a Client is identified</li><li>• <b>After Client</b> - execute this rule after client identification but before rate identification</li><li>• <b>After Rate</b> - execute this rule after rate identification but before routing</li><li>• <b>After Routing</b> - execute this rule after routing</li></ul></div> |
|                   | Src Code Deck | Identify a code deck that will be used for <b>Src</b> codes or code names filtering                                                                                                                                                                                                                                                                                                                                                                                                            |
|                   | Dst Code Deck | Identify a code deck that will be used for <b>Dst</b> codes or code names filtering                                                                                                                                                                                                                                                                                                                                                                                                            |
|                   |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | <b>Order</b> Sets rules ordering that works within the same rule <b>Type</b> . <div>  <b>Attention</b> <p>Note that this field indicates the order of rules execution only within a specified type. It means that a rule with the <b>Initial</b> type and order <b>1</b> will be executed before any other rule of the same type with order <b>2</b>. However, such a rule will be executed prior to a rule with the <b>After Rate</b> type and order <b>0</b>, even though the latter has a higher order, due to the fact that <b>Initial</b> is the <b>1st</b> on the types list.</p> </div> |
|              | <b>Origin</b> Specify the event origin: <ul style="list-style-type: none"> <li>• <b>Origination</b></li> <li>• <b>Termination</b></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|              | <b>Notes</b> Specify additional informational about a rule                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|              | <b>Expiration Date</b> Define a date when this rule will expire and will be removed from the system                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Match</b> | <p>On the <b>Match</b> menu select the 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 <b>quick search</b> by typing filters' names in the field at the top of the <b>Match</b> menu.</p> <div>  <b>Tip</b> <p>If, for instance, the <b>Client</b> filter is empty, it means that this rule will implicate all clients.</p> </div>                                                                              |
|              | <b>General</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|              | <b>Service</b> Select a target from the drop-down list of all services presented in the Services section of your JeraSoft Billing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|              | <b>Gateway</b> Select a respective VoIP gateway, for which rule is applied, from the drop-down list                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|              | <b>Tags (Any)</b> A rule will work if an event has at least one of the tags specified in this field                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|              | <b>Tags (All)</b> A rule will work if an event has all tags specified in this field                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|              | <b>Tags (Not)</b> A rule will work if an event has no tags specified in this field                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|              | <b>Src Party ID</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|              | <b>Src (Match)</b> 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 <b>SRC Replace</b> field.                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|              | <b>Src Prefixes (Any)</b> A rule will work if an event has at least one of the Src prefixes (e.g., <b>010, 810</b> ) specified in this field                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|              | <b>Src Prefixes (Not)</b> A rule will work if an event has no Src prefixes (e.g., <b>010, 810</b> ) specified in this field                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|              | <b>Src Prefixes Names (Any)</b> A rule will work if an event has at least one of the Src prefixes names (e.g., <b>vodafone</b> ) specified in this field                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

|               |                                 |                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | <b>Src Prefixes Names (Not)</b> | A rule will work if an event has no Src prefixes names (e.g., <b>vodafone</b> ) specified in this field                                                                                                                                                                                                                                                                                           |
|               | <b>Dst Party ID</b>             |                                                                                                                                                                                                                                                                                                                                                                                                   |
|               | <b>Dst (Match)</b>              | In this field you may indicate POSIX regular expressions syntax ( <i>see best practice example below</i> ), by which a number will be analyzed. If an expression matches the number, the translation will occur in respective settings in the <b>Dst Replace</b> field.                                                                                                                           |
|               | <b>Dst Prefixes (Any)</b>       | A rule will work if an event has at least one of the Dst prefixes (e.g., <b>010, 810</b> ) specified in this field                                                                                                                                                                                                                                                                                |
|               | <b>Dst Prefixes (Not)</b>       | A rule will work if an event has no Dst prefixes (e.g., <b>010, 810</b> ) specified in this field                                                                                                                                                                                                                                                                                                 |
|               | <b>Dst Prefixes Names (Any)</b> | A rule will work if an event has at least one of the Dst prefixes names (e.g., <b>vodafone</b> ) specified in this field                                                                                                                                                                                                                                                                          |
|               | <b>Dst Prefixes Names (Not)</b> | A rule will work if an event has no Dst prefixes names (e.g., <b>vodafone</b> ) specified in this field                                                                                                                                                                                                                                                                                           |
|               | <b>Client</b>                   |                                                                                                                                                                                                                                                                                                                                                                                                   |
|               | <b>Client</b>                   | Specify a respective client<br><br><div>  <b>Attention</b><br/> Please be advised that any traffic processing rule can have either the <b>Client</b> or <b>Account</b> field. </div>                                                                                                                           |
|               | <b>Account</b>                  | Specify a respective account                                                                                                                                                                                                                                                                                                                                                                      |
|               | <b>Code</b>                     | Specify a destination code (use * as a wildcard)                                                                                                                                                                                                                                                                                                                                                  |
| <b>Action</b> | <b>Mode</b>                     | Defines an action that will be executed if a traffic rule matches: <ul style="list-style-type: none"> <li>• <b>Allow</b> - allow a current event to proceed. Stop further traffic processing rules within this type of rule;</li> <li>• <b>Allow and Continue</b> - allow a current event to proceed. Search for the next traffic rule;</li> <li>• <b>Deny</b> - deny a current event.</li> </ul> |
|               | <b>Src Replace</b>              | Replacement for a matched rule. For this field to work, the <b>Scr Match</b> filter must be used in the <b>Match</b> information block.                                                                                                                                                                                                                                                           |
|               | <b>Dst Replace</b>              | Replacement for a matched rule. For this field to work, the <b>Dst Match</b> filter must be used in the <b>Match</b> information block.                                                                                                                                                                                                                                                           |
|               | <b>Set Service</b>              | Allows to change a specified service to another one while processing them                                                                                                                                                                                                                                                                                                                         |
|               | <b>Add Tags</b>                 | Here you can add tags that will be added for events matching this rule                                                                                                                                                                                                                                                                                                                            |

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>LNP /MNP</b>        | Define a provider for the LNP/MNP service, which will be dipped for translation <div> <b>⚠ Attention</b><br/>           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 <b>LNP/MNP</b> field, a user can select either <b>tja.ee (Routing Number)</b> or <b>tja.ee (Owner)</b>. The difference is as follows:           <ul style="list-style-type: none"> <li>• <b>tja.ee (Routing Number)</b> - if a traffic processing rule executes, <b>372+Original Number</b> will be substituted by <b>372+Routing Number</b>, specified in the TJA database.</li> <li>• <b>tja.ee (Owner)</b> - if a traffic processing rule executes, <b>372+Original number</b> will remain unchanged. Instead, a <b>Dynamic Tag</b> indicating an <b>owner</b> of the number will be added to the call.</li> </ul>           Please find more about TJA database <a href="#">here</a>.         </div> |
| <b>LNP Direction</b>   | Define which <b>Party ID(s) (Src, Dst, or both)</b> will be used for LNP dipping. To enable this feature, you need to specify the <b>LNP/MNP</b> field.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>NANP Processing</b> | Define if NANP processing will be used for LNP dipping: <ul style="list-style-type: none"> <li>• <b>Enabled</b></li> <li>• <b>Disabled</b></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

### ✓ 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 **7891**, 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 **7891**, 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:

Process »

IMPORT CONFIG

Import Mode:

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

|                      |                    |                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Import Config</b> | <b>Import Mode</b> | <p>Specify what to do with the current traffic processing rules:</p> <ul style="list-style-type: none"> <li>• <b>Keep previous data</b> - new rules will be added to the old ones</li> <li>• <b>Purge all other rules</b> - old rules will be deleted and substituted by the new ones.</li> </ul> <p>By default, the <b>Purge all other rules</b> option is selected.</p> |
|----------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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*

