

ETREL OCEAN

MESSAGE QUEUE

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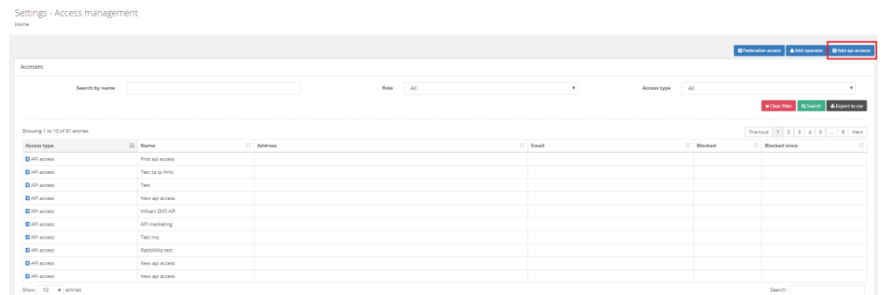
1 | WHAT IS MESSAGE QUEUE

Message queue (MQ) is messaging or notification system integrated within the Ocean platform that allows you to get notifications of what is happening with the system and use them in your outside systems (eg. send an email to user that the charging session has started).

2 | SUBSCRIBE TO MQ

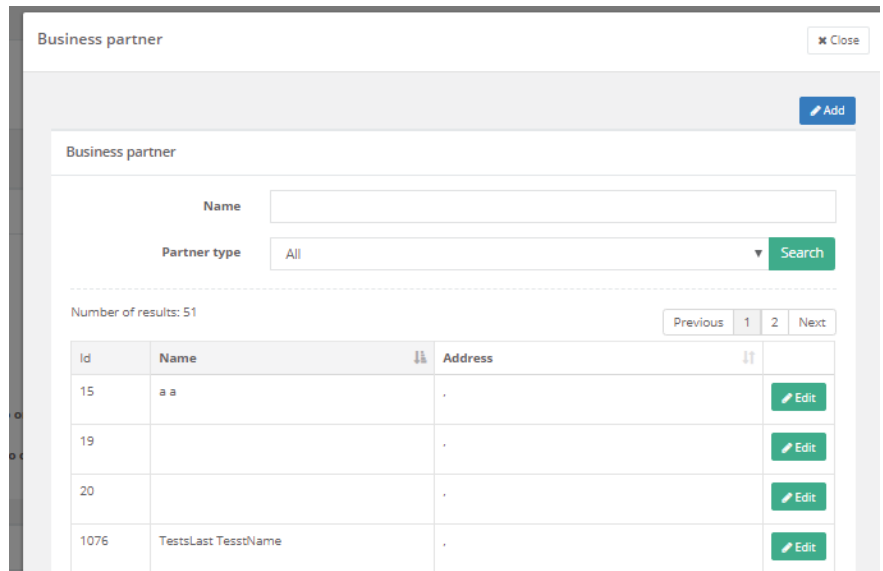
To subscribe to MQ you will have to add new API access to Ocean, which will be used by the specific subscriber. You can add multiple subscribers. In the “Settings” → “Access management” you can configure to which messages you would like to subscribe to.

In the “Access management” press “Add api access” button. You are able to add multiple API accesses.



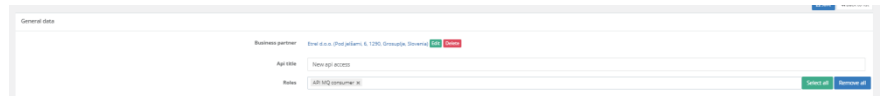
You must set “Business partner” by pressing the “Edit” button and selecting the business partner or adding new one if it is not in the Ocean already.

DO NOT SHARE ACCESS WITH EXTERNAL PARTNERS, SINCE MESSAGES ARE CURRENTLY NOT FILTERED BY PARTNER RIGHTS.



Different operators can be subscribed to different messages.

Write in new “Api title” and then in the “Roles” field choose “API MQ consumer”.



In the “Message queue types” you must select messages to which you would like to subscribe to. All the messages available can be found in the application as well as their description.

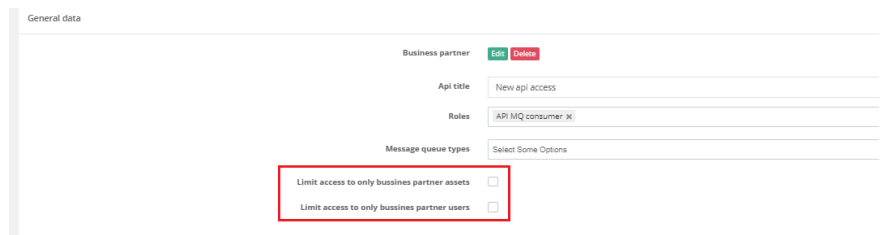
ONCE YOU SAVE YOUR API AND YOU REOPEN IT FROM THE LIST YOU WILL ALSO GET USERNAME AND API KEY WHICH SHOULD BE USED WHEN CONNECTING TO THE MQ EXCHANGE. PLEASE READ DEVELOPER EXAMPLE. LINK IS PROVIDED IN CHAPTER 3.

FILTERING MESSAGES

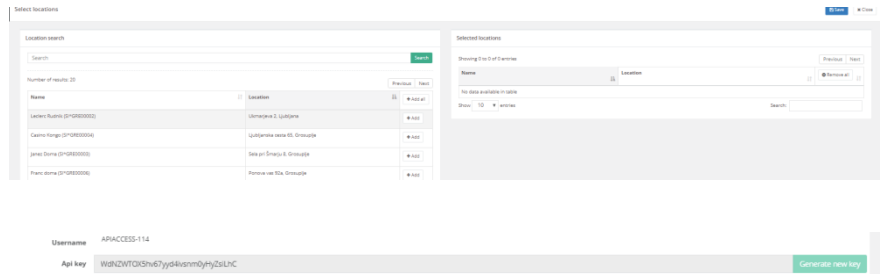
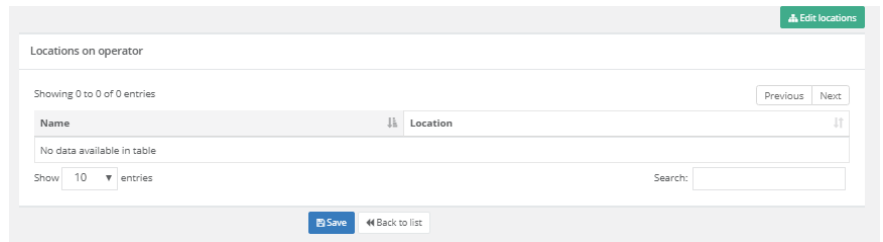
You are able to filter messages for specific business operators by selecting the specific business operator as specified above. Apart from that you are able to filter messages for selected charging locations.

TO BE DEVELOPED

In the future you will be able to use “Limit access to only business partner assets” and “Limit access to only business partner users”, so that messages are only about particular business partner assets or users.



If you wish that you receive notification only for particular locations add location in the following form by pressing the “Edit locations” button.



3 | DEVELOP YOUR NOTIFICATIONS

In the Program.cs, which can be found on the following link (<https://etrelchargingsolutions.atlassian.net/wiki/spaces/EO/pages/550109195/Message+Queue>) you will find some practical instructions how to integrate Ocean MQ into your environment. We have implemented an event bus with RabbitMQ (message broker software). RabbitMQ is using protocol AMQP 0-9-1. RabbitMQ client must be implemented to consume these messages. We have written an example in C#, but you can find support for other platforms on their website: <https://www.rabbitmq.com>.

To start the development you will have to use API key and username which are created when API access is saved. For the environment where you would like to run or test your notifications insert for staging URL: stage-yourURL.etrel.com, for production insert: yourURL.etrel.com.

MAJOR AND MAINOR CHANGES

Messages will be constantly developed by Etrel. Changes will either be minor or major (breaking change). Minor changes (new fields in the message) won't change the operation of your notification system but major changes might. That is why when major change is done multiple versions of notification will be sent for limited time. This will give you time to change the code but until then you will be able to use older version.

4 | TROUBLESHOOTING

One of the biggest issues with MQ is if the communication with rabbitmq fails or your subscriber API access fails. For this case messages system is built so that the messages are saved and are sent to you when the communication is reestablished.

Etre Ocean | Message queue

System can save up to 1000 messages before they are overwritten.
Once they are sent the saved messages are cleared.