

ETREL OCEAN

MESSAGE QUEUE

Document version: 1.0 Confidential – intended only for recipient



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" \rightarrow "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.

							Elfederation access Add operator	B Add age
sses								
Search by name			Rale Al		Access type	Al		*
							# Oser filter Q Search	ADports
ing 1 to 10 of 21 entries							Previous 1 2 3 4 5	9 1
cess type	Il Name	11 Address		11 Email		11 Blocked	8 Bincked since	
PLaccess	First apl access							
PI access	Test ta ip limit							
PI access	Text							
	Test New apl access							
PI access								
PI access PI access	New api access							
PI access PI access PI access	New api access Infoart SMS API							
PI access PI access PI access PI access PI access PI access PI access	New apl access Infoart SMS API API marketing							

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.

Bu	isiness parti	ner						x Close
								/ Add
	Business pa	artner						
		Name						
		Partner type	All				Ŧ	Search
	Number of r	results: 51			Pr	evious	2	Next
	Id	Name	Įk	Address				
	15	aa						/ Edit
	19							/ Edit
	20							/ Edit
	1076	TestsLast TesstNar	ne					🖋 Edit

2 | 5

Etrel Ocean | Message queue

Different operators can be subscribed to different messages.

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

General data	
Business partner	Erel d.o.a. (Ped Jolieni, 6, 1250, Grenople, Doveria) 📶 Daven
Api title	New up i increas
Roles	AD INQ consumer at Select at Remove at

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.

Business partner End Codec Api title New api access Api title Api title Api title Api title Busines partner x Busines partner x Edd Consumer x Limit access to only busines partner users Limit access to only busines partner users	General data		
Roles ARI MQ consumer x) Message quevet types Select Some Options Limit access to only busslines partner assets		Business partner	Edit Delete
Message queue types Select Some Options Limit access to only busines partner assets		Api title	New api access
Limit access to only bussines partner assets		Roles	API MQ consumer N
		Message queue types	Select Some Options
Limit access to only bussines partner users		Limit access to only bussines partner assets	
		Limit access to only bussines partner 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 | 5

Etrel Ocean | Message queue

							Left Edit locations
Locations on opera	rator						
Showing 0 to 0 of 0) entries						Previous Next
Name			14	Locatio	n		
No data available i	in table						
Show 10 V	entries					Search:	
		🖺 Save	📢 Back	to list			
fect locations							Bites #Co
tect locations Location search				Seeth	Selected locations		
Location search				Search	Selected locations Denving the bird factories Name	A losses	Elecc. + Co. Pacing Not. (Becond) ()
Location search Search		Lauton		Searth Visua Next +Astal	Dhenning 3 co 0 of 5 antoniae Namme No data availadhe in tabhe	ji Lontor	Trains Net
Location search Search Number of results: 20		Location Simples 1 (Julges		visue Next	Showing 0 to 0 of 0 antries Name	a Leader	Previout Next
Location search Search Number of results: 20 Name				Next #Add ell	Dhenning 3 co 0 of 5 antoniae Namme No data availadhe in tabhe	II Vanim	Trains Net
Location search Search Number of Headite 20 Name Laction fluored (2010000) Cases Surger (20100000) James During (20100000)		Ukmaçiwa 2. Ljubijana Ljubijanska cesta 65. Grosvojija Sela pri Šmaçiv 8. Grosvojija		 Heat Hada Hada Hada Hada Hada 	Dhenning 3 co 0 of 5 antoniae Namme No data availadhe in tabhe	a tanina	Trains Net
Leastion search Search Number of results 20 News Leaver Russik (SPGE80002) Cearen Runge (SPGE80002)		Ukmargeva 2. Ljubljana Ljubljanska pasta 65. Ordsuplje		Vicus Next	Dhenning 3 co 0 of 5 antoniae Namme No data availadhe in tabhe	a India	Trains Net
Location search Search Number of Headite 20 Name Laction fluored (2010000) Cases Surger (20100000) James During (20100000)		Ukmaçiwa 2. Ljubijana Ljubijanska cesta 65. Grosvojija Sela pri Šmaçiv 8. Grosvojija		 Heat Hada Hada Hada Hada Hada 	Dhenning 3 co 0 of 5 antoniae Namme No data availadhe in tabhe	a, Loose	Trains Net
Exaction search Search Newber of reacing 20 Newber (PriVED0000) Carrie Stages (Sr-0600006) Pares driving (Sr-0600006) Pares driving (Sr-0600006) Pares driving (Sr-0600006)		Ukmaçiwa 2. Ljubijana Ljubijanska cesta 65. Grosvojija Sela pri Šmaçiv 8. Grosvojija		 Heat Hada Hada Hada Hada Hada 	Dhenning 3 co 0 of 5 antoniae Namme No data availadhe in tabhe	A Location	Trains Net

3 DEVELOP YOUR NOTIFICATIONS

In the Program.cs, which can be found on the following link (https://etrelchargingsolutions.atlassian.net/wiki/spaces/EO/pages/55 0109195/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). Rabbit MQ 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 TROUBLSHOOTING

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.

4 | 5

Etrel Ocean | Message queue

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