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# NETIO Cloud – Open API (MQTT)

**Protocol version: NETIO Cloud Open - API Version 1.0**

## Short summary

**NETIO Cloud** is an ideal solution for remote control and restarting. NETIO Cloud is a paid service that NETIO products a.s., manufacturer of smart power socket devices, offers to its customers. With NETIO Cloud, any electrical appliance powered from a power output of a NETIO device can be switched on/off or power-cycled over the Web. There is no limit to the number of NETIO devices connected to the Cloud. <https://cloud.netio-products.com/>

**NETIO Cloud – Open API (MQTT)** is implemented as an API protocol using MQTTs so the NETIO Cloud can serve as a unified interface (MQTT broker) for all devices linked to the same user account. With this Open API, all devices linked to the same user account can be controlled together.

## Price of using NETIO Cloud API

Every request/message on external API is charged by **1 Credit / 1 DataPoint**.

Credit amount is evaluated once per day according to user actions and messages. Account last day summary value is available in the Account Log.

More details in [NETIO Cloud Terms & Conditions](#)

## Supported devices

- [NETIO PowerPDU 4C](#)
- NETIO PowerCable [MQTT](#) / [REST](#) / [Modbus](#)
- [NETIO PowerPDU 4PS](#)
- NETIO PowerDIN 4PZ
- [NETIO PowerBOX 3Px](#)
- [NETIO 4All](#)
- [NETIO 4](#)

## General protocol info - MQTT

MQTT is a machine-to-machine (M2M) / "Internet of Things" connectivity protocol. It was designed as an extremely lightweight publish/subscribe messaging transport. It is useful for connections with remote locations where a small code footprint is required and/or network bandwidth is at a premium.

Sources:

<http://mqtt.org/>

<https://en.wikipedia.org/wiki/MQTT>

## NETIO Cloud – Open API (MQTT) protocol details

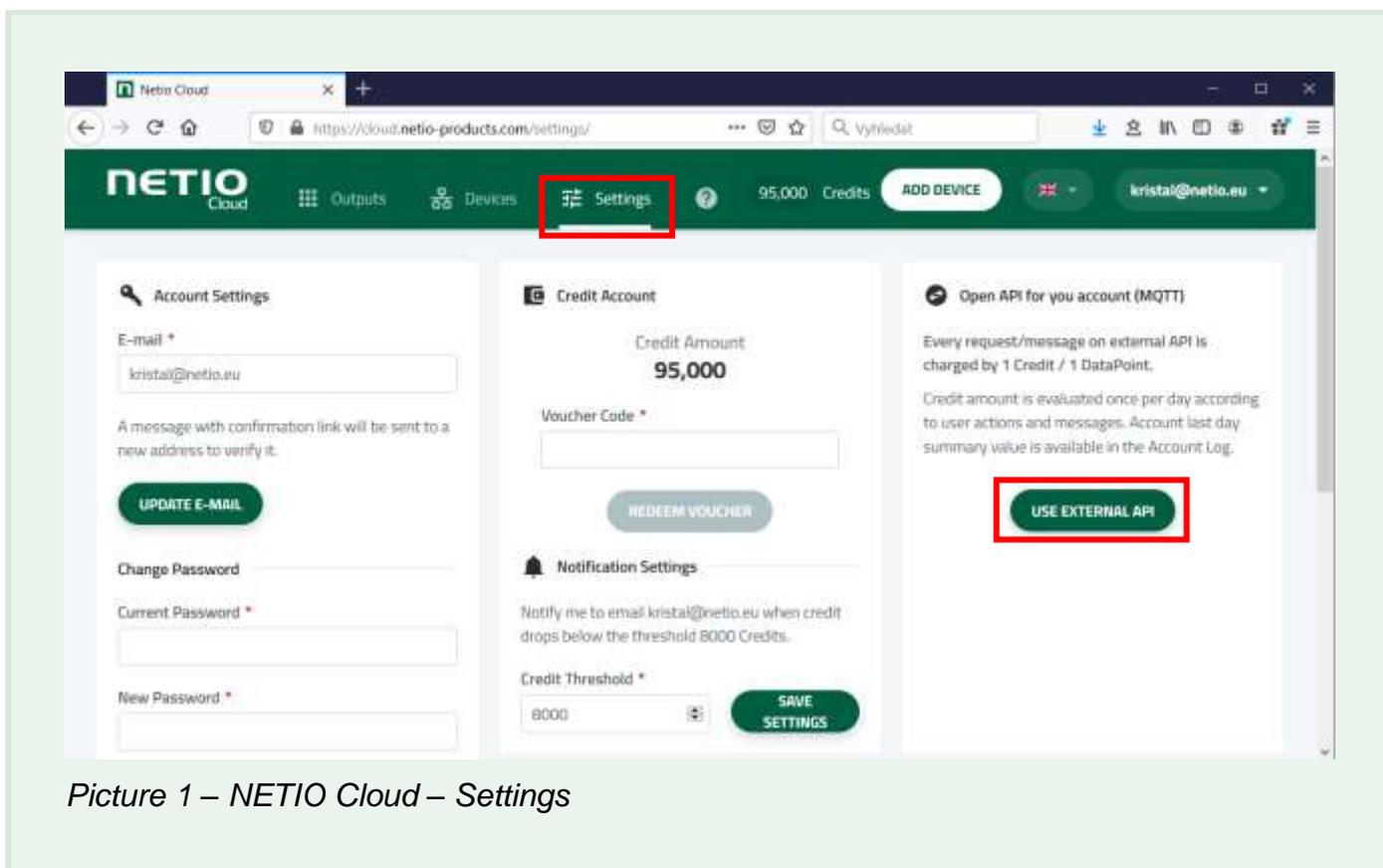
### Connection details

The connection details for specific user account are available in NETIO Cloud web interface (Picture 1)

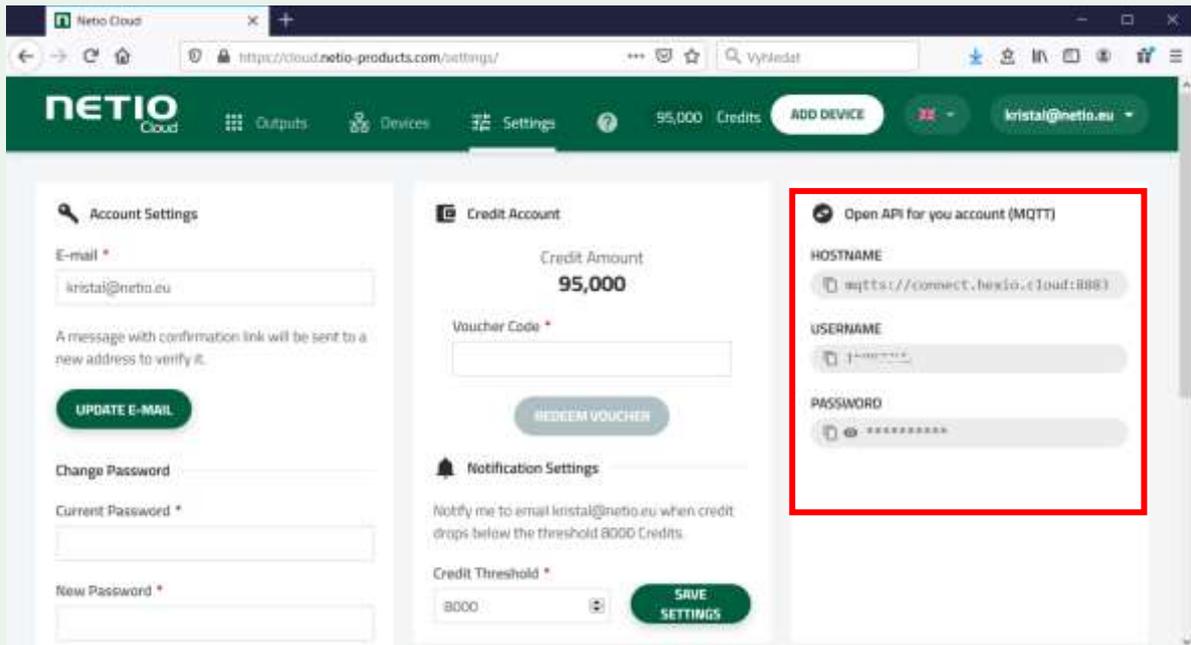
- tab “Settings”
- section “Open API for your account (MQTT)”
- click on button “USE EXTERNAL API”

Then you will see (Picture 2)

- “Hostname” – url of the MQTT broker
- “Username” and “Password” – credentials for MQTT authorization



Picture 1 – NETIO Cloud – Settings



Picture 2 – NETIO Cloud – Settings / Open API for your account (MQTT)

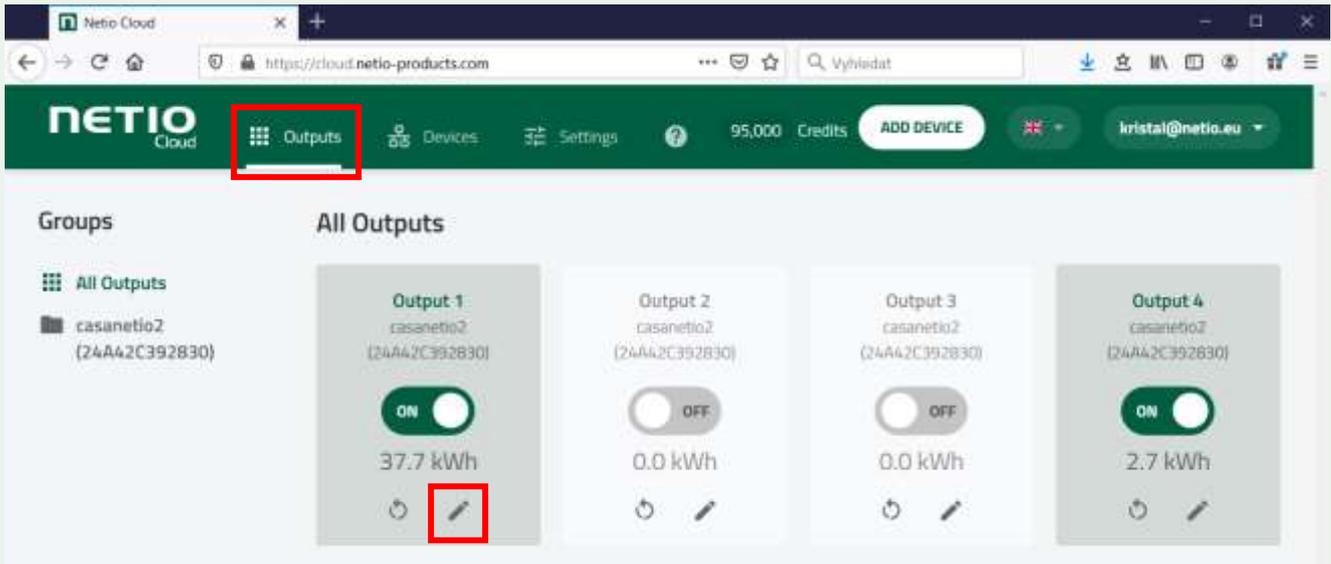
## MQTT Topics

The topics are available in NETIO Cloud web interface

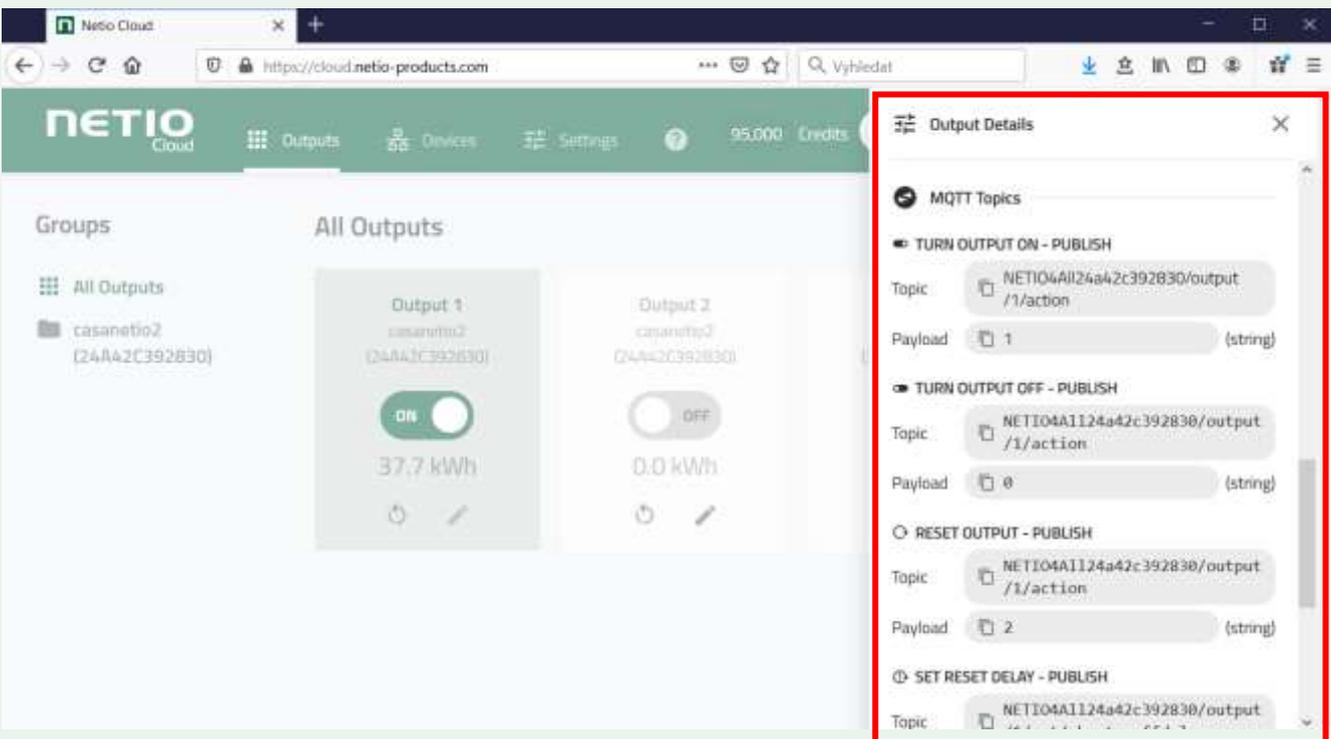
- tab “Outputs”
- icon “Output settings” for selected output (*Picture 3*)
- scroll down to section “MQTT Topics”

Then you will see Topics and respective payloads for selected output (*Picture 4*)

- Turn output ON - PUBLISH
- Turn output OFF - PUBLISH
- Reset output - PUBLISH
- Set reset delay - PUBLISH
- Get output state - SUBSCRIBE
- Get consumption - SUBSCRIBE



Picture 3 – NETIO Cloud – Outputs



Picture 4 – NETIO Cloud – Outputs / Output details

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## Publish topic format

### Output control

**<Device UID>/output/<output ID>/action**

Payload (string)

- 0 Output Turn OFF
- 1 Output Turn ON
- 2 Output reset

### Set reset delay

**<Device UID>/output/<output ID>/set/shortonoffdelay**

Payload (string)

- Time in milliseconds (e.g. 1000 for 1sec)

## Subscription topic format

### Output status

**<Device UID>/output/<output ID>/state**

Payload (string)

- 0 Output is OFF
- 1 Output is ON

### Get consumption (only devices with metering)

**<Device UID>/output/<output ID>/consumption**

Payload (string)

- Value of consumption in Wh

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## Document history

Document Revision	Publication Date	Description
0.2	20.5.2020	Preliminary version