What features does the LOQED Touch Smart Lock offer with Fibaro?

The LOQED Touch Smart Lock & Fibaro integration is done via the local bridge API.
Currently, the following functionalities are supported:

- Send real-time status changes of the lock (open, unlock, lock) and battery, Wi-Fi, Bluetooth state to the Fibaro gateway. Battery level, if below 5%, will display om tje QuickApp as dead.
- Receive commands from the Fibaro gateway to change the lock state (open, unlock, lock).
- English, German & Dutch language. You can add additional languages by adding them to the sourcecode yourself.
- When using multiple LOQED locks, simply add extra QuickApp instance and setup with proper data.
- Currently this QuickApp can't decode json data POSTed by the bridge, as FIBARO/Yubii/elero/zooz API simply ignores any unknown data and accept only JSON key args:[{}]. Therefore, one can't decode who opened/closed the LOQED via App (or if it was manually, with knob).
- Security consideration: the LOQED bridge sends any status change (e.g. "the door was opened") to Fibaro over an unsecure HTTP connection in your Wi-Fi network, but with a digital signature. Fibaro uses the digital signature to ensure the status change is not sent by someone else than the LOQED Bridge (thus, to ensure that nobody can make the Fibaro device think the door opened, while in fact that was not the case). Only the HC3 (not the Yubii Home / HC3L) supports this. Note that this does not affect opening/locking the door, it is only concerns the status information.

Requirements

- A supported gateway, such as:
  - [Fibaro Home Center 3](#) (note that the Home Center 2 is not supported)
  - [Fibaro Home Center 3 Lite](#)
  - [Yubii Home](#)
 - [elero Yubii Home](#)
  - [zooz Z-Box Hub](#)

Installation

Step 1: create API key

Go to https://app.loqed.com/API-Config and log in with your LOQED app e-mail address and password (note that you will be logged out of the LOQED app). Click on the "API Configuration tool" button. Click the "Add new API key" button. Set any name and create the API key. It is normal the "Remove unlocking/locking checkbox is greyed out.
After the key is created, click on the "view / edit" button. Leave this screen open.

Step 2: install the Fibaro QuickApp

Login into your Fibaro gateway. If you have a Fibaro branded device, you should be able to go to http://find.fibaro.com/to find your gateway's IP address.

Download the Quick App file and extract the ZIP. Go to "settings" -> "Devices" and click the plus-icon to add a new device. Next, find the device called "Upload file" and upload the Quick App file.
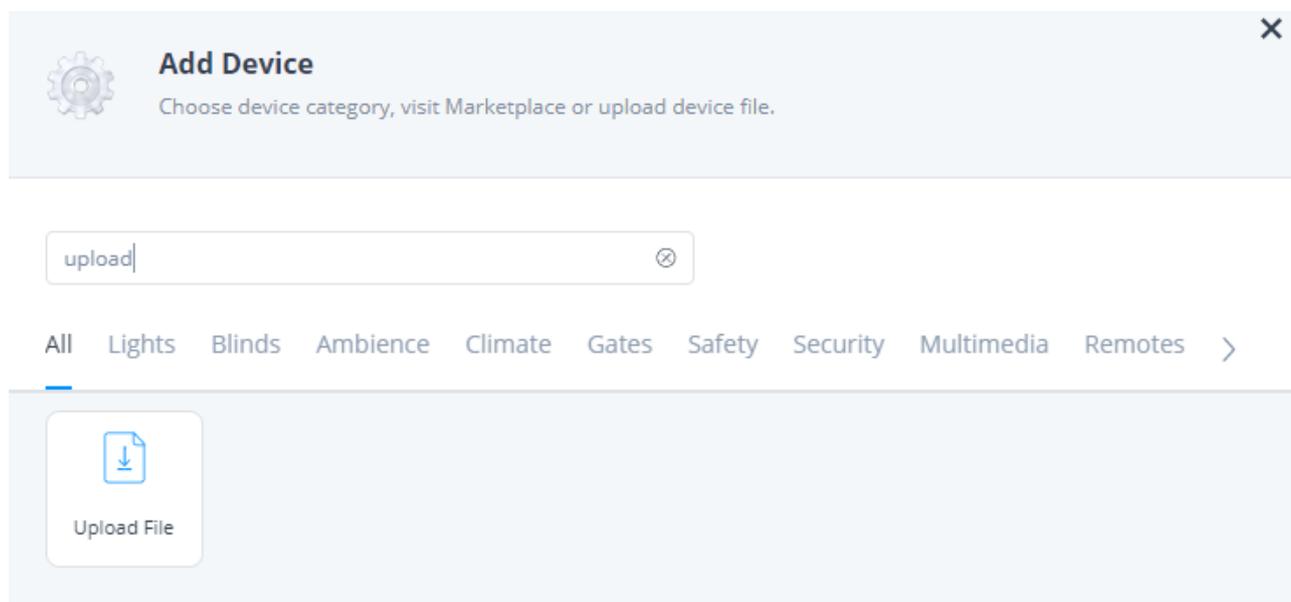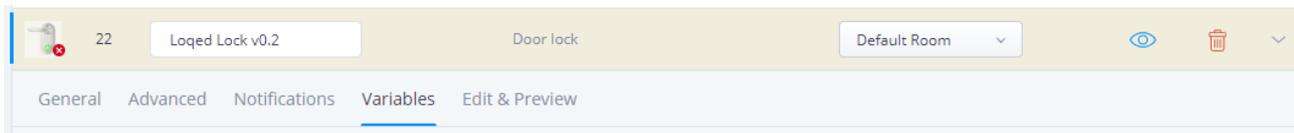

Step 3: Create a user on the Fibaro gateway

Create a local user on your gateway with permissions for the LOQED Quick App. Please do not use any special characters. This user is used to update the gateway of lock state changes as soon as they happen. While not recommended, you can also skip this step and user your administrator username and password (if they do not contain special characters).

Step 4: configure the Quick App

Click the variables tab.

Now, set the variables to the correct value. Each value can be find on https://app.loqed.com/API-Config.

Variable	Where to find the value
bridge_ip	LOQED API Config -> "Outgoing Webhooks via LOQED **Bridge**" -> "IP address"
bridge_auth_key	LOQED API Config -> "Outgoing Webhooks via LOQED Bridge" -> "Authentication Key (base64)"
key	LOQED API Config -> "API Keys (incoming webhooks)" -> "Key"
lock_id	LOQED API Config -> "API Keys (incoming webhooks)" -> "Lock ID" *You can also use any name you like, this is just to identify the lock.*
local_key_id	LOQED API Config -> "API Keys (incoming webhooks)" -> "Local Key ID"
refresh_time (default 600)	How often (in seconds) the Quick App will poll for a lock status change. We recommend to keep this value low. It is actually only required to poll after the gateway boots, as any lock state change is directly sent to the gateway. *Battery and online status information is only received via polling, although the*
extra_errors (default 0)	Set to 1 to see HTTP information.
webhook_user	Use the username from step 3.

webhook_pass	Use the password from step 3. *Note: you have to delete this "secret" field, and then create it again, giving it again the name "webhook_pass".*
home_center_ip	Set the IP address of your gateway here. Do not use a loopback IP (127.0.0.1), but the local network IP address.
use_webhooks (default 1)	When set to 1, all Quick App functions (related to webhooks) are enabled using the user/password you created. Set it to 0 if you wish to use loop / poll instead (see refresh_time above)

Step 5: create webhooks on LOQED bridge

The LOQED bridge can send any status change of the lock to your gateway as soon as they happen. For this, you need to set some URL's on the LOQED Bridge. There are two ways to do this:

1. If you have a Fibaro Home Center 3, you can do this by just clicking a button.
   These buttons are not available on Home Center 3 Lite, Yubii Home nor Z-Box gateways, due to missing support for 53-bit floating point numbers in 32bit CPU LUA environment (as used by these gateways).
2. Otherwise, you have to do this manually.

Step 5a: create webhooks if you have Fibaro Home Center 3

Go to the "Edit & Preview" tab. Click the "Create Webhooks" button.

ICON	ID ⬍	NAME ⬍	ROLE	ROOM ⬍	POWER

General   Advanced   Notifications   Variables   **Edit & Preview**

Device Preview

Click the button below to enter the edit mode. Created or m
displayed on the left.

LOQED Status : Open

Open	Lock
Get Status	Unlatch

BLE strength : 28

WiFi strength : 77

Battery : OK : 36%

Battery Voltage : 9.523V

Battery Type : NICKEL_METAL_HYDRIDE

Uptime : 3 days, 4 hours, 23 minutes

Number of Webhooks : 6

Create Webh...	Show Webho...	Delete Webh...

You can verify the action was successfull by going to https://app.loqed.com/API-Config --> "Outgoing Webhooks via LOQED Bridge" --> click the button "Add/delete webhooks". On that page, you should see multiple entries with an URL to your gateway.

URL									
http://admin:********@	✓	✗	✗	✗	✗	✗	✗	✗	✗
http://admin:********@	✗	✓	✗	✗	✗	✗	✗	✗	✗
http://admin:********@	✗	✗	✓	✗	✗	✗	✗	✗	✗
http://admin:********@	✗	✗	✗	✓	✗	✗	✗	✗	✗

Note: if you click by mistake multiple times on the button, don't worry, as the bridge will not create duplicate webhooks.

This QuickApp will generate only webhooks for "open", "latch", "night lock" and "unknown" events, as these are normally sufficient for most users. Battery or online status events are polled every 10 minutes by default.

Step 5b: create webhooks manually (if you do not have a Fibaro Home Center 3)

Skip this step if you have done step 5a.

You need to create 4 webhooks on the LOQED Bridge to inform the gateway about the 4 different lock statuses.
Go to https://app.loqed.com/API-Config --> "Outgoing Webhooks via LOQED Bridge" --> click the button "Add/delete webhooks". On that page, add the following URLs:

- http://gw_user:gw_password@gw_ip/api/devices/thisQAID/action/webhookNightLock (**only for the night lock trigger**)
- http://gw_user:gw_password@gw_ip/api/devices/thisQAID/action/webhookDayLock (**only for the latch trigger**)
- http://gw_user:gw_password@gw_ip/api/devices/thisQAID/action/webhookOpen (**only for the open trigger**)
- http://gw_user:gw_password@gw_ip/api/devices/QAID/action/webhookUnknown (**only for the unknown state trigger**)

Above, "gw_user" and "gw_password" is your gateway's username and password created in step 3, "gw_ip" is the IP of the gateway, "QAID" is the device ID of the QuickApp, which can be found in the device list (see below image where it is 22)

Done

That's it! You can now control your LOQED Touch using Fibaro.

Thanks to

Many thanks to "tinman". For questions and bug reports tinman can be contacted via the Fibaro Forum or Fibaro Marketplace.