• Overview

MK110 gateway supports multiple servers like EMQTT,AWS,Ali etc.This document will explain the operation process during you use it，and the following demo pictures take android phone as example.

Connect to MQTT server

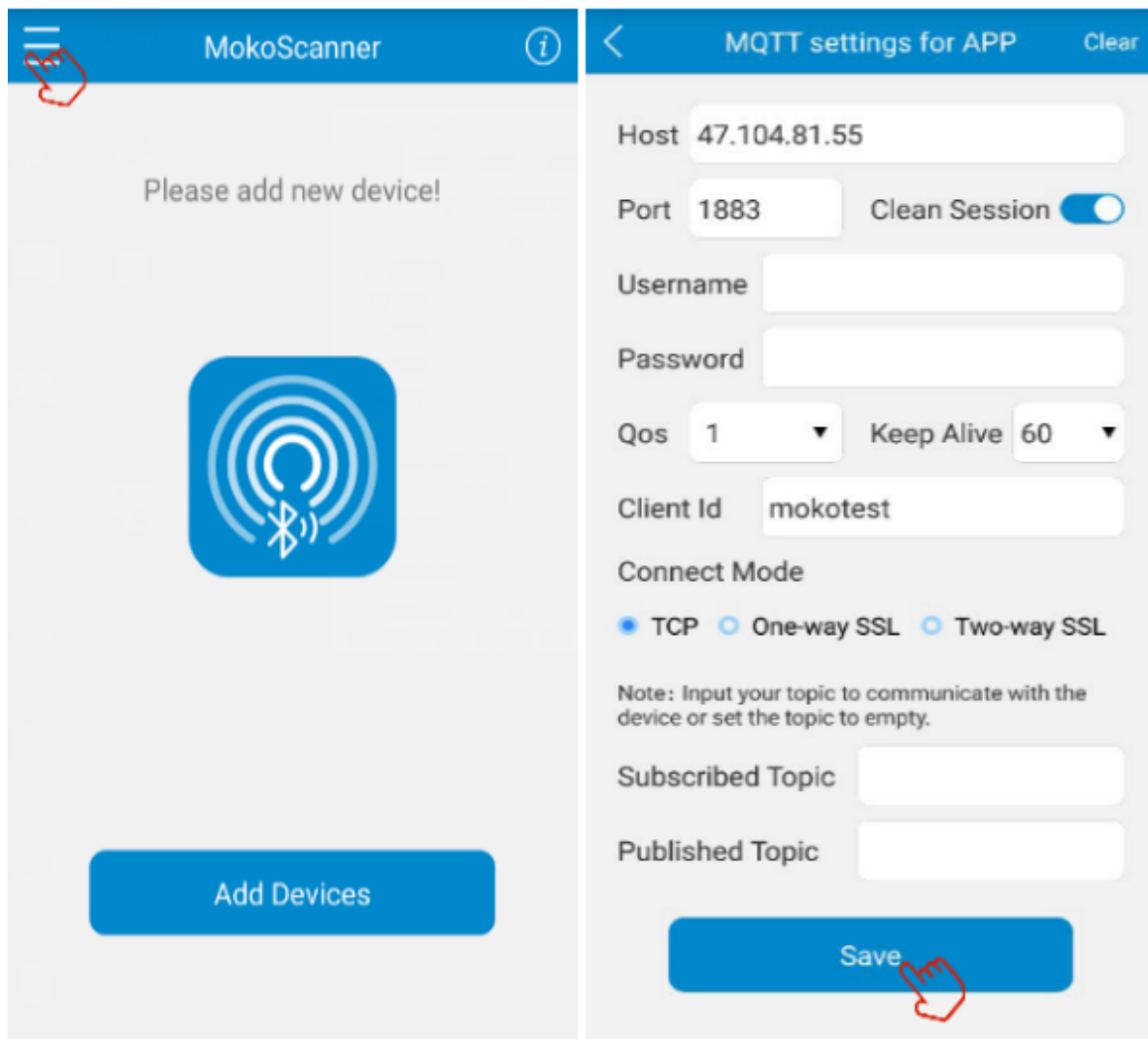## 1 Connect to EMQTT server

1.1 How to to connect app to EMQTT server

1.Download MOKO Scanner from Googleplay or APP store.Or scan the QR code below to directly download.

2.Power on the plug and shortly press the button on plug,the indicated light will flash green.open your MOKO Scanenr,click the upper left icon to the "MQTT settings for APP" interface.

3.Enter the MQTT configuration parameters,click "Save".

- Host: MQTT server host IP or domain name
- Port: MQTT server host port
- Clean session:on
- Username: can be set or can be null
- Password: can be set or can be null
- QoS: Range: 0~2
- Client id: Unique identity after the client connects to the server
- Connect mode: tcp : EMQTT , One-way SSL: ALi ,Two-way SSL: AWS
- Subscribed Topic and Publish Topic can be set or empty

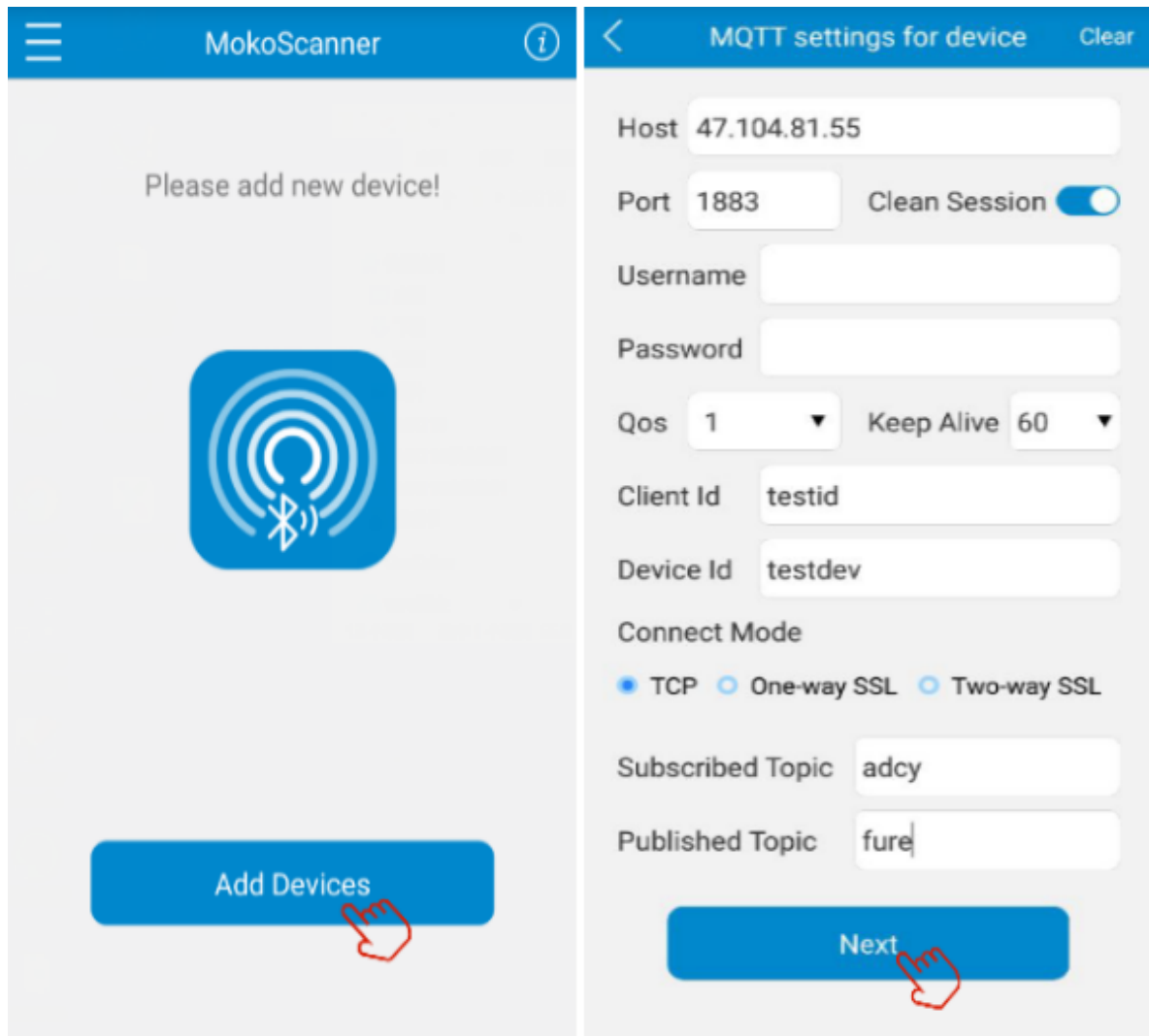 **Note: The host ip and port in the DEMO can be used directly if you need.**
  Host：47.104.81.55
  port：1883
  Just available for test

1.2 How to connect plug to EMQTT server

1.Afer MQTT settings for APP successed,click "Add device" to choose the waiting connection device.then enter into the "MQTT settings for device"

Differences from MQTT settings for APP:

- Client id: Unique identifier for MQTT servre distinguishing device. It can't be set the same as APP side Client Id and can't be null.
- Device id: Unique identifier for APP distinguishing device and it can't be null.
- Subscribed Topic and Published Topic are neccessary，If APP side is null，you can set them everything.If APP topics have been set,you should set them according to the APP side.The device Subscribed Topic must be consistent with APP Published Topic,and the device Published Topic is the same as APP Subscribed Topic too.(Setting rules：APP Subscribed Topic = Device Published Topic and APP Published Topic = Device Subscribed Topics)
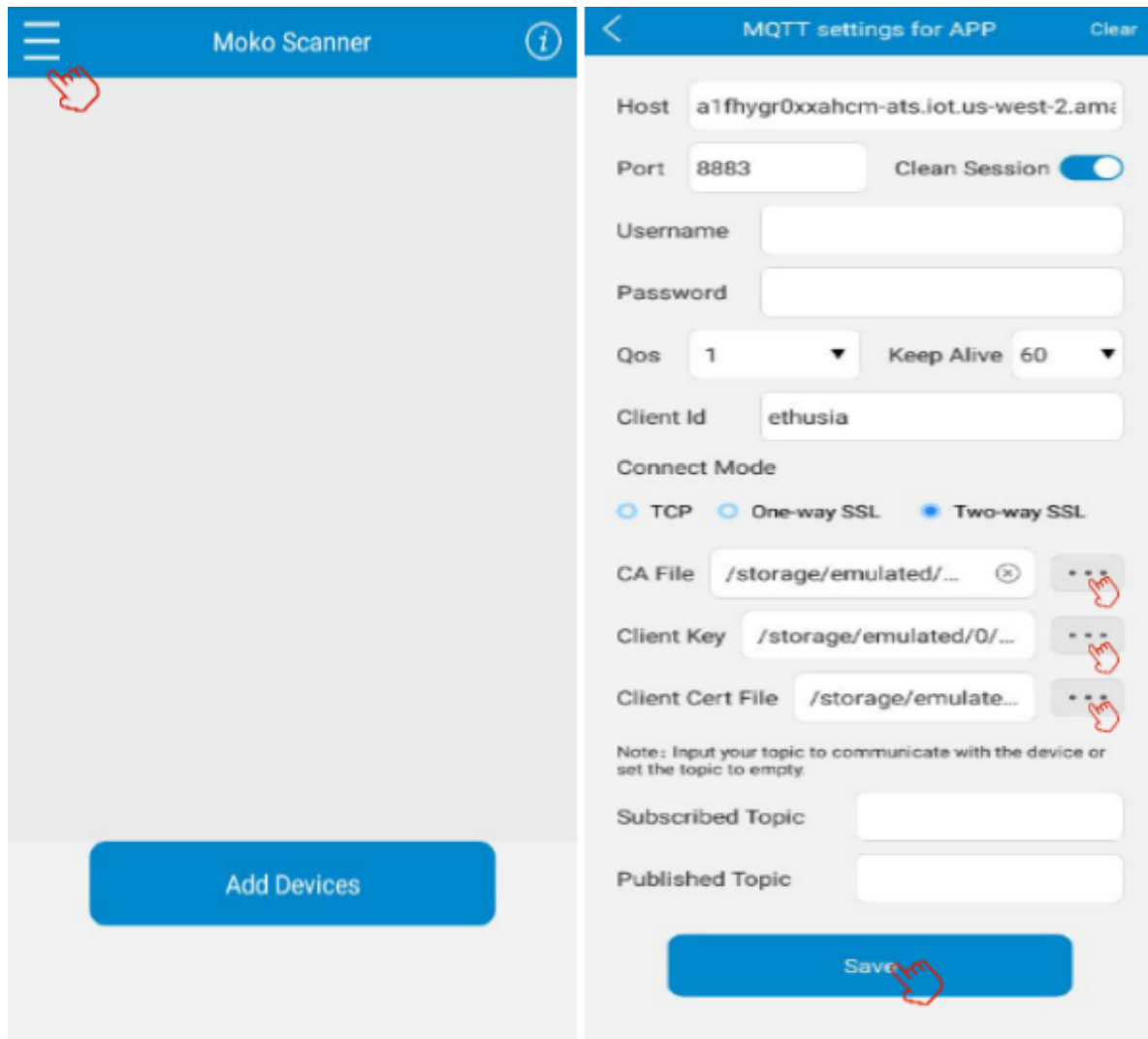
2.Connect to AWS

2.1 How to connect app to AWS

1.Download MOKO Scanner from Googleplay or APP store.

2.Power on the plug and shortly press the button on plug,the indicated light will flash green.open your MOKO Scanenr,click the upper right icon to the "MQTT settings for APP" interface.
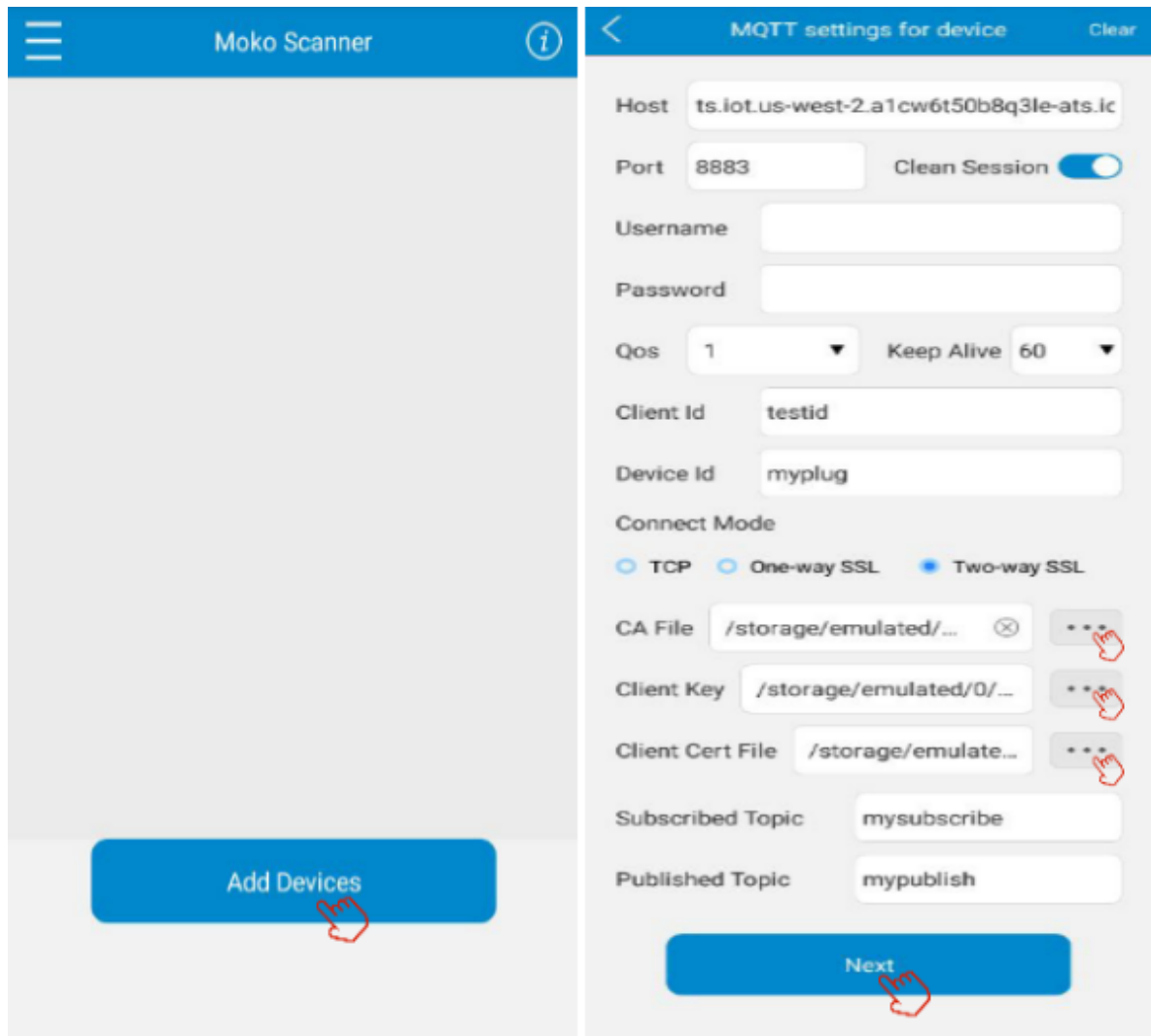
3.Enter the MQTT configuration parameters,click "Save".

- Host: MQTT server host IP or domain name
- Port: MQTT server host port
- Clean session:on
- Username: can be set or can be null
- Password: can be set or can be null
- QoS: Range: 0~2
- Client id: Unique identity after the client connects to the server
- Connect mode: tcp ：EMQTT，One-way SSL: ALI ,Two-way SSL: AWS
- Certificate files: Including CA root certificate,client private key and client certificate

2.2 How to connect plug to AWS

1.Afer MQTT settings for APP successed,click "Add device" to choose the waiting connection device.then enter into the "MQTT settings for device"
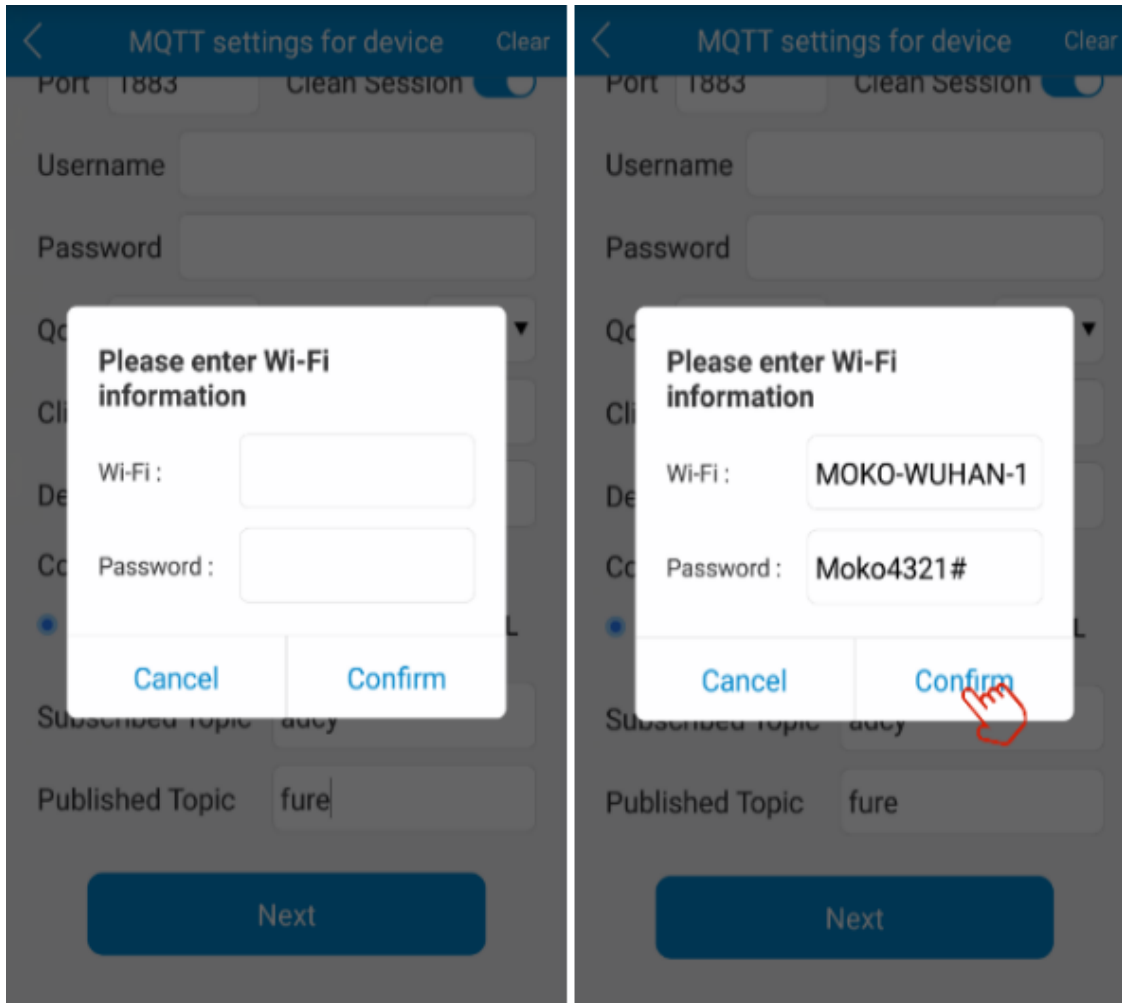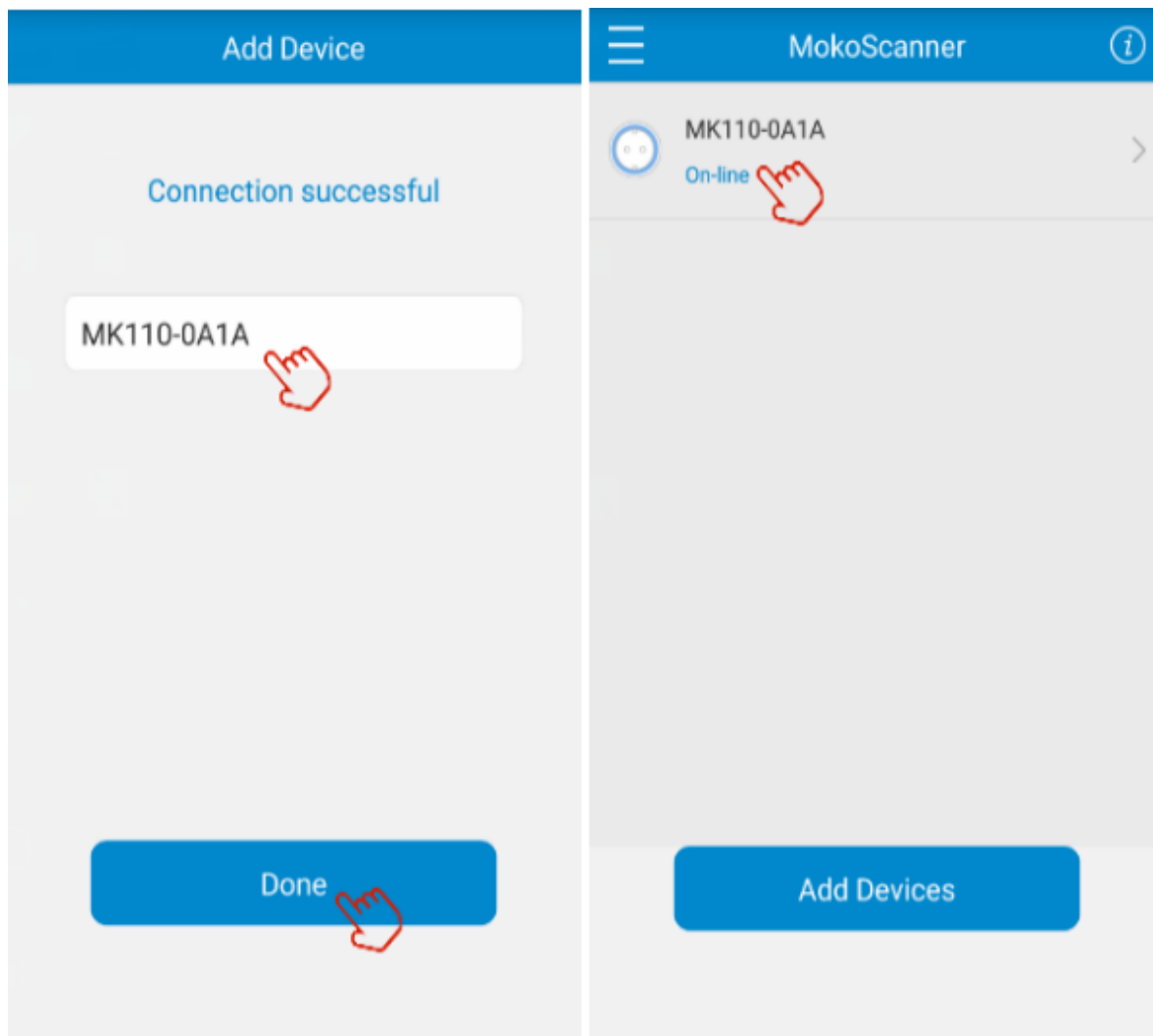

Differences from MQTT settings for APP:

- Client id: Unique identifier for MQTT servre distinguishing device. It can't be set the same as APP side Client Id and can't be null.

- Device id: Unique identifier for APP distinguishing device and it can't be null.

- Subscribed Topic and Published Topic are neccessary.If APP topics have been set,you should set them according to APP topics and must cross-corresponds.(Setting rules：APP Subscribed Topic = Device Published Topic and APP Published Topic = Device Subscribed Topics)

3. Connect to router

1.After the MQTT configuration parameters entered,click "Next".The app interface will jump to the network connection interface like this:

2.Click in the SSID and password of your router,enter "Confirm".the indicated light flash green turns to solid green.it means that the plug bluetooth connected with APP.Once network connection successed,the indicated light becomes solid blue.Then you can rename the device as you want，and click "Done".then the device shows "online".
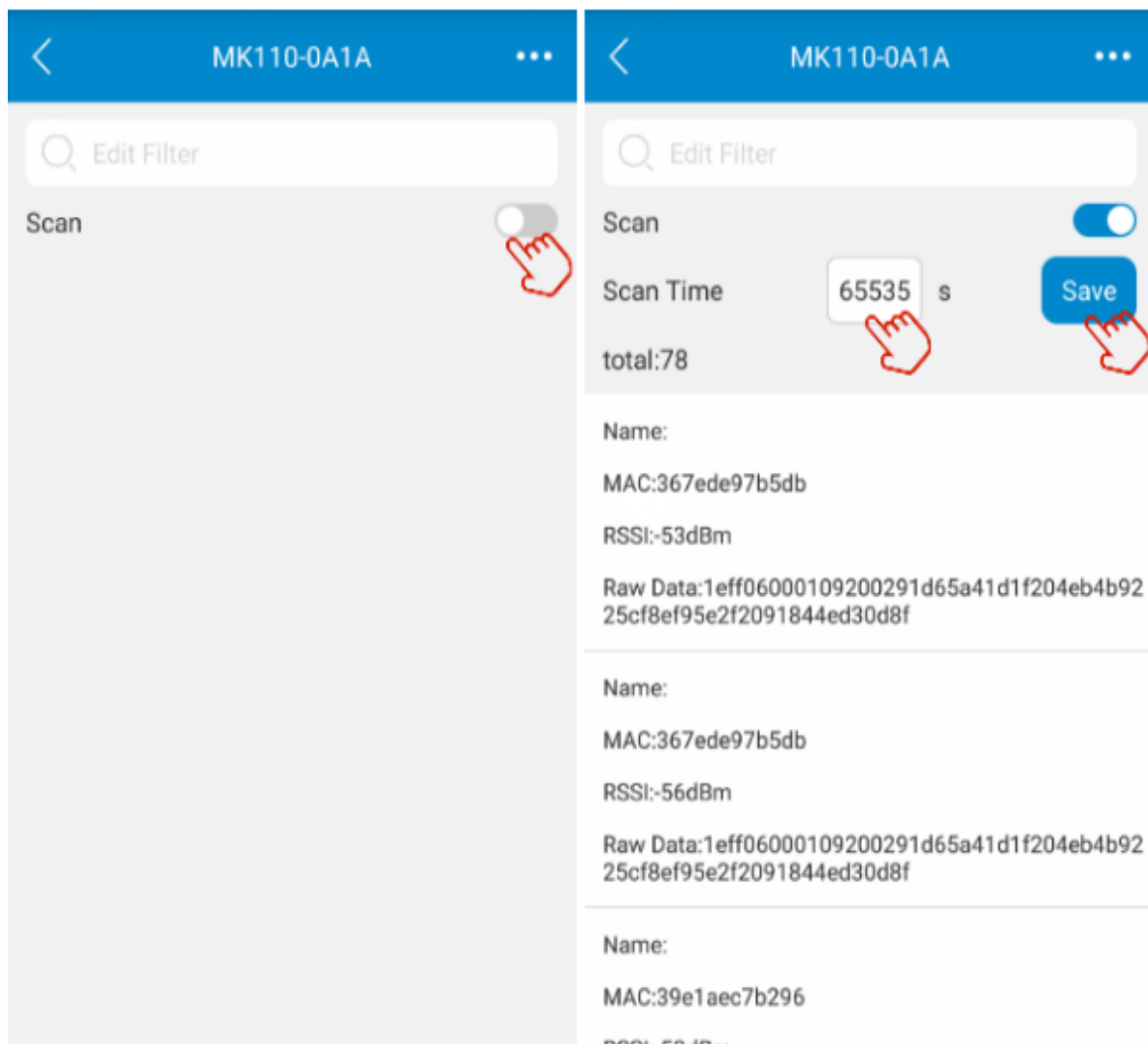
3.Click the online device name,now you can configure the MK110 gateway through MOKO Scanner app.

4 How to set MK110 gateway via MOKO Scanner
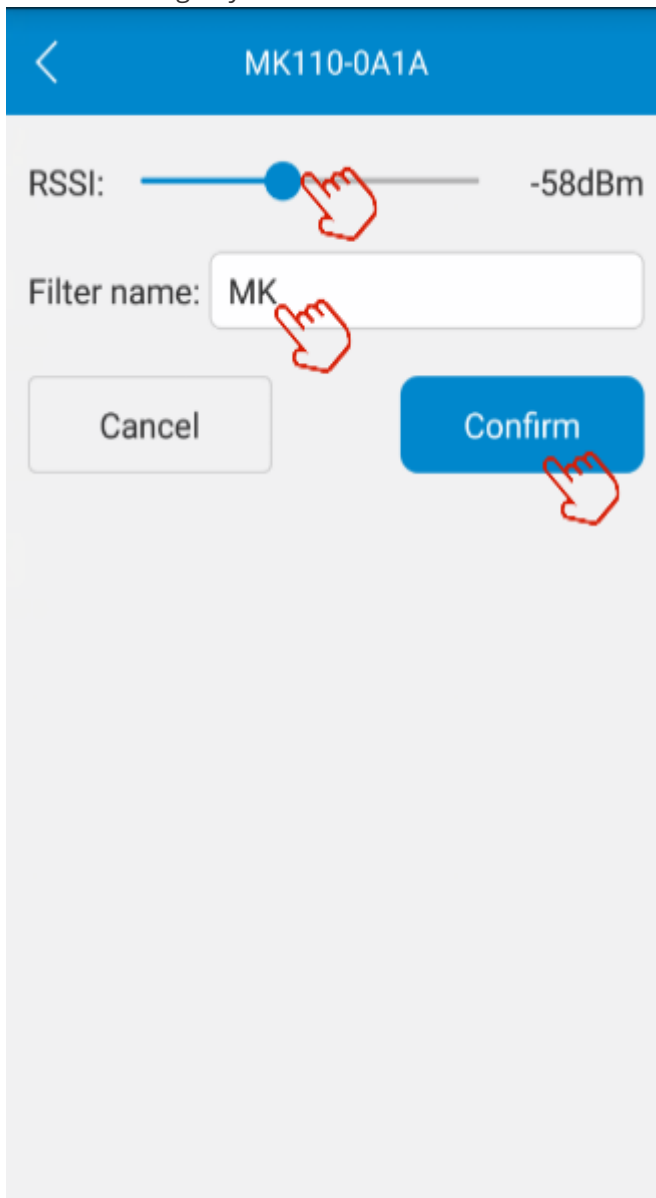
4.1 Scan BLE device

Click the switch status menu to turn on the scanner switch. and set the scanning time，click "Save",Your plug will start scaning BLE device nearby.When the scanning time reached, the device will automatically stop scanning.

MK110-0A1A

Edit Filter

Scan ⬜

MK110-0A1A

Edit Filter

Scan 🔵

Scan Time [65535] s   Save

total:78

Name:

MAC:367ede97b5db

RSSI:-53dBm

Raw Data:1eff06000109200291d65a41d1f204eb4b92
25cf8ef95e2f2091844ed30d8f

Name:

MAC:367ede97b5db

RSSI:-56dBm

Raw Data:1eff06000109200291d65a41d1f204eb4b92
25cf8ef95e2f2091844ed30d8f
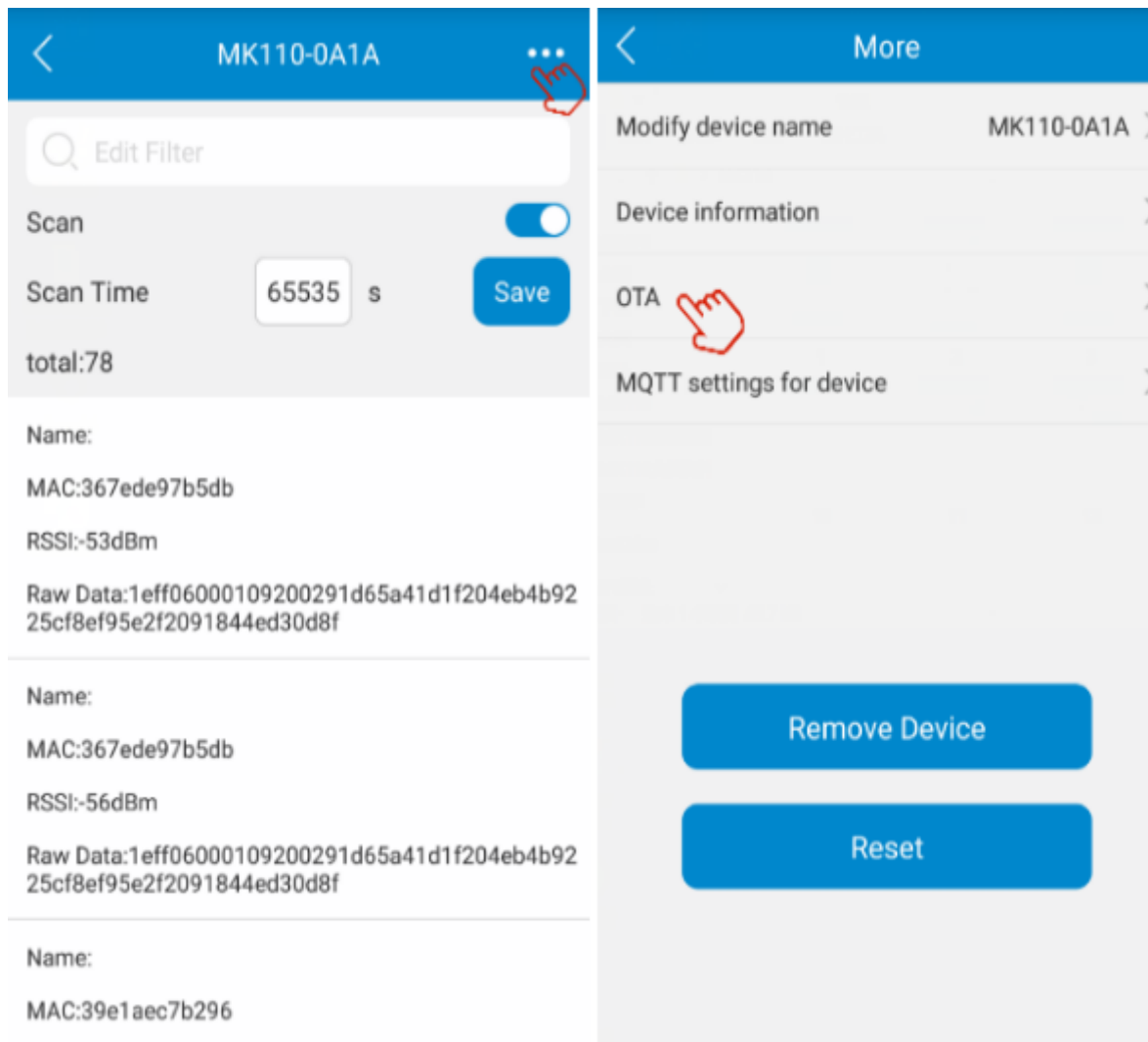
Name:

MAC:39e1aec7b296

4.2 Set the filter parameter

Click the "Edit filter" textbox,app will go to the setting interface.the filter RSSI and filter name can be set according to your needs.
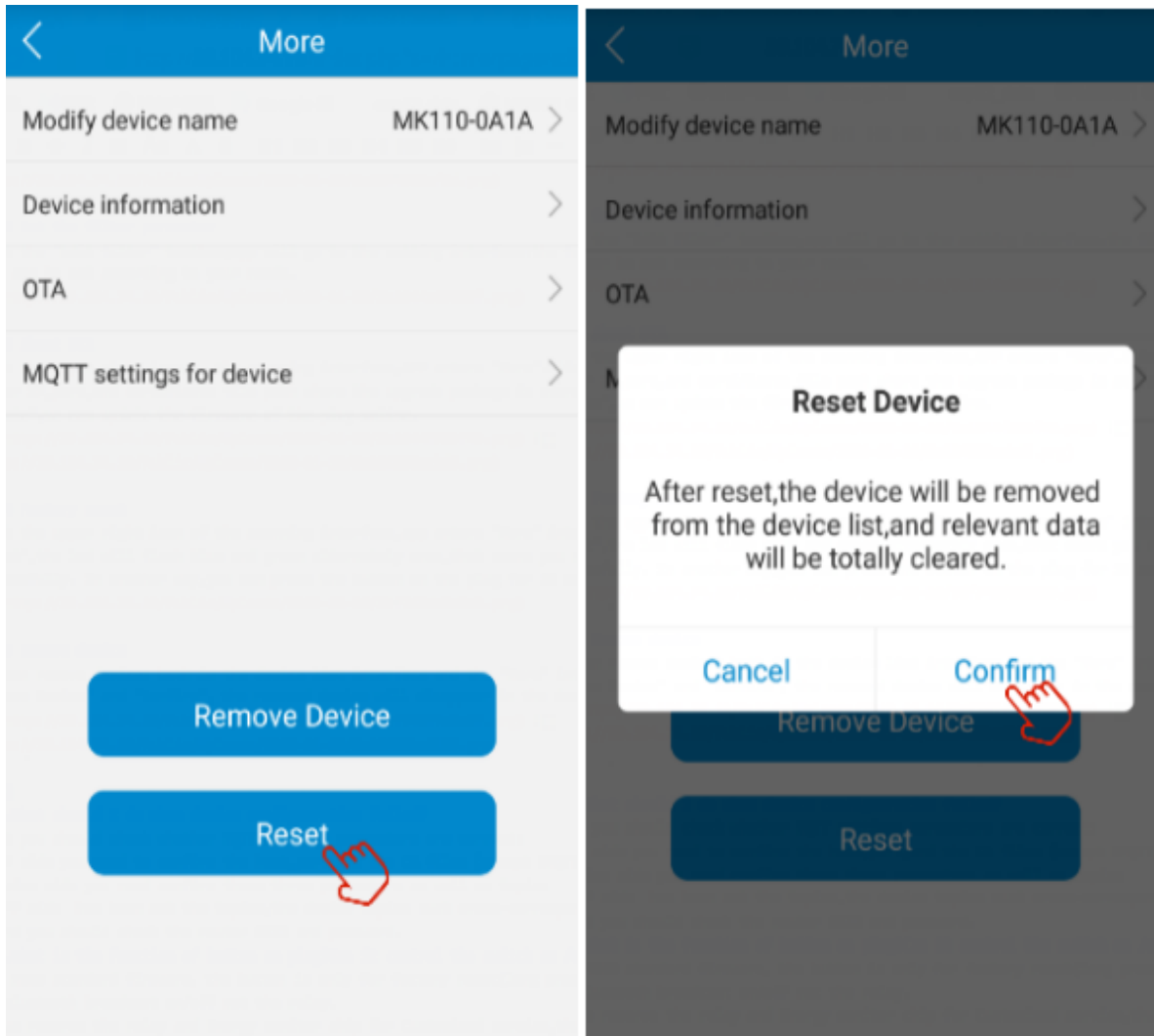

4.3 About OTA

Click the upper right icon of the scanning interface,APP enters "More".Click "OTA"，enter the server IP,port,and certificate file path where the upgrade package is stored,then click "Start Upadate",we can update the firmware of the plug online.
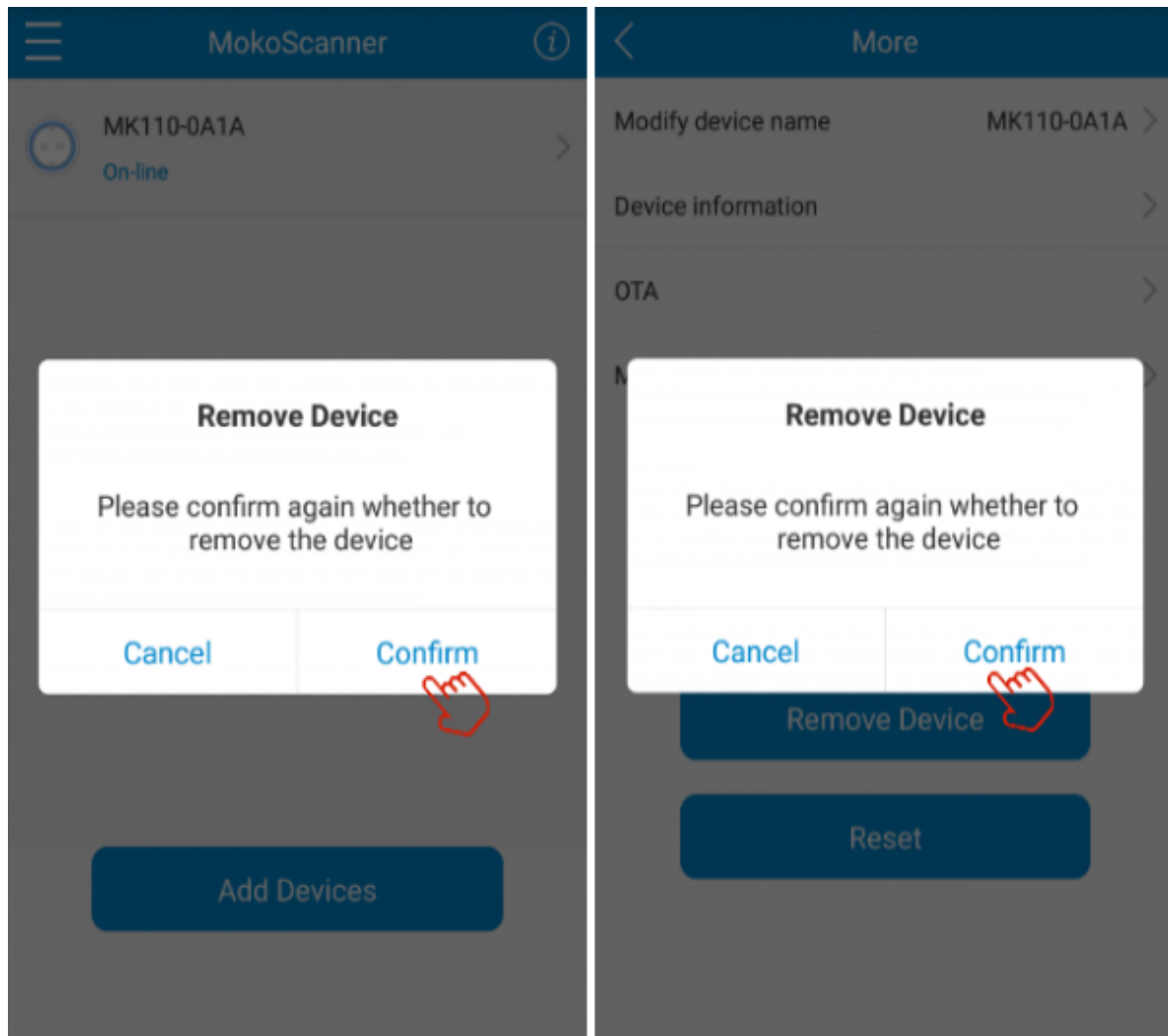
4.4 Factory reset

  Click the upper right icon of the scanning interface,app enters "More" interface,and then click the "Reset",the led will flash blue and green alternately once,that means you reset the plug successfully. In another way,you can press the button on the plug for 10 seconds to reset the plug.

4.5 Remove device

You can remove devices both in the device list interface and the "More" interface.After clicking "Remove Device" and "Confirm"，the removed device will disappear in the device list.

FAQ

1.What should I do when device configuaration failed?

First you should check whether MQTT settings parameters are correct:

- APP side you need to confirm the host,port,and the CA files（except EMQTT)
- Device side you need confirm those three paremeters as well as topics
  If APP side has been set the topics,the device topics must cross-corresponds to APP topics.
    Second you should check the router SSID and password.

2.What is the function of button on plug?Can it control the switch on /off?

With MOKO standerd firmware，the button is only for factory reset(long press button for 10s) and
 set bluetooth broadcast on/off not the relay.
 And we reserve the relay and Energy monitor chip for Customized service,thus you can develop the switch control function or energy management if you need.

3.What devices can the MK110 gateway scan for?

MK110 gateway can scan almost all Bluetooth devices，such as beacon，wristband and so on.

FCC STATEMENT

1.This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

2.any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE:
1)This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

2)This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the
interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

3)FCC Radiation Exposure Statement
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.