



SUPHAWAT
JUTRASONG

NEXPIE

BACK-END
DEVELOPER

Device key v.2

Device Key, Session Key, Device Key v.2 (beta)

APPLICATION KEY

▼ Device Key mydoor [online:0]



▶ Device Key mylamp [online:0]



MICROGEAR



MQTT

แตกต่างอย่างไร



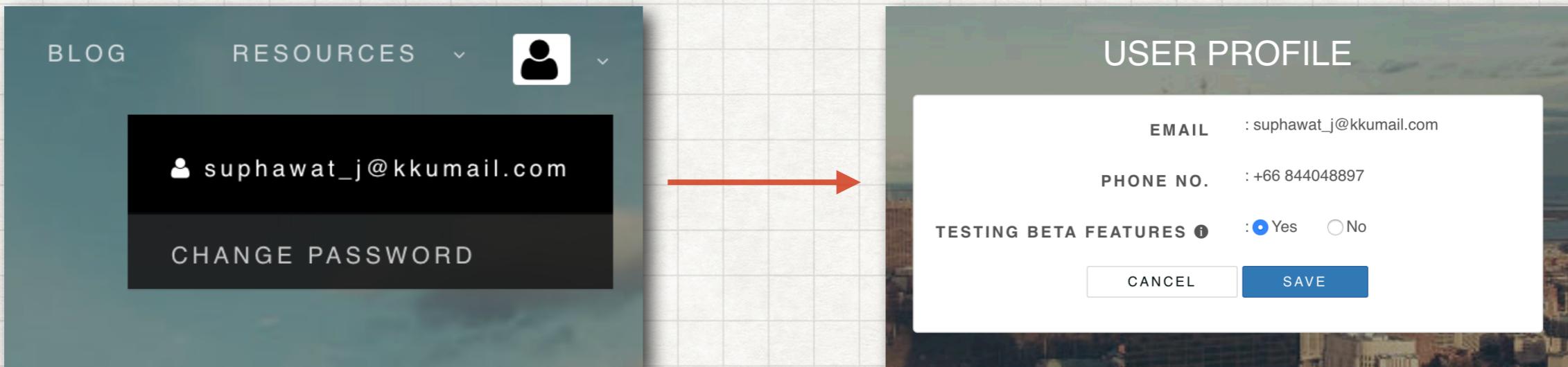
MICROGEAR



MQTT

How to

1. เปิด Beta version



2. ไปหน้า Application

🔑 Device Key, 🔑 Session Key, 🔑 Device Key v.2 (beta)

This screenshot shows a list of application keys in a web-based interface. The list includes:

- mydoor [online:0] (with a blue key icon)
- mydoor (with a blue key icon)
- mylamp [online:0] (with a blue key icon)

Each item in the list has a small blue 'X' icon to its right. The second item, 'mydoor', also has a green power button icon and a grey 'X' icon below it.

โปรแกรมที่ใช้ทดลอง

1. ทดสอบต่อแบบ MQTT



MQTTBox

2. ทดสอบต่อแบบ MICROGEAR



NETPIE Freeboard

Lab

1. ทดสอบต่อแบบ MQTT ด้วย MQTTBox

MQTT Client Name: lamp

MQTT Client Id: Ab1hmFDjRrRi7tqe

Protocol: mqtt / tcp

Host: gb.netpie.io

Username: SYPKLSBLLQ1c1A7ub9GqXuF5cHhaudFG

Password: (Redacted)

Reconnect Period (milliseconds): 1000

Connect Timeout (milliseconds): 30000

KeepAlive (seconds): 10

Append timestamp to MQTT client id?: No

Clean Session?: Yes

Reschedule Pings?: Yes

Broker is MQTT v3.1.1 compliant?: Yes

Auto connect on app launch?: No

Queue outgoing QoS zero messages?: Yes

Will - Topic: Will - Topic

Will - QoS: 0 - Almost Once

Will - Retain: No

Will - Payload: (Empty)

Save

Delete

mylamp

Enter A-Z, a-z, 0-9, underscore(_), dash(-) only.

Key : Ab1hmFDjRrRi7tqe

Secret : SYPKLSBLLQ1c1A7ub9GqXuF5cHhaudFG

REST API auth :

RENAME CANCEL

Note:

1. MQTT Client Name = จะตั้งอะไรก็ได้
2. MQTT Client Id = Key
3. Username และ Password = Secret
4. Protocol = MQTT
5. Host = gb.netpie.io
6. Append timestamp = no
7. Clean Session = yes
8. Broker MQTT Version >= 3.1.1

Lab

2. ทดสอบต่อแบบ MICROGEAR ด้วย Freeboard

DATASOURCE

Connect to NETPIE as a microgear to communicate real-time with other microgears in the same A datasource is referenced by microgear[DATASOURCENAME]

TYPE : NETPIE Microgear

NAME : mydoor

APP ID : MyHomeWorkNEXPIE1234

NETPIE App ID obtained from <https://netpie.io/app>

KEY : Xqk4zWK8GUQTSkE5

SECRET : DpAxxRaVBQ6vDAwNSfCePTf6TVg2GTzb

SUBSCRIBED TOPICS : /#

Topics of the messages that this datasource will consume, the default is /# which means all messages in this app ID.

ONCREATED ACTION :

JS code to run after a datasource is created

ONCONNECTED ACTION :

JS code to run after a microgear datasource is connected to NETPIE

mydoor

Enter A-Z, a-z, 0-9, underscore(_), dash(-) only.

Key : Xqk4zWK8GUQTSkE5

Secret : DpAxxRaVBQ6vDAwNSfCePTf6TVg2GTzb

REST API auth :

RENAME CANCEL

Note:

- สามารถใช้ Key และ Secret ต่อได้แบบ Microgear ปกติเลย

Lab

3. กด Save ทั้ง MQTTBox และ Freeboard จะเห็นสถานะออนไลน์ขึ้นทั้ง 2 Device

Device Key, Session Key, Device Key v.2 (beta)

APPLICATION KEY	
mydoor [online:1]	
mydoor	
mylamp [online:1]	
lamp	

≡ Menu Connected Add publisher

lamp - mqtt://gb.netpie.io

You have no publisher or subscriber added for this MQTT connection.

MQTTBox

DATASOURCES

Name	Last Updated
mydoor	8:39:23 AM
ADD	

Freeboard

Lab

4. ทดสอบ Publish/Subscribe ด้วย MQTTBox

The screenshot shows the MQTTBox application interface. At the top, there are several buttons: 'Menu' (grey), a back arrow ('Connected'), a green 'Connected' button with signal strength, 'Add publisher' (blue), 'Add subscriber' (orange), a red number '1' indicating a new message, and a gear icon.

Left Panel (Publisher):

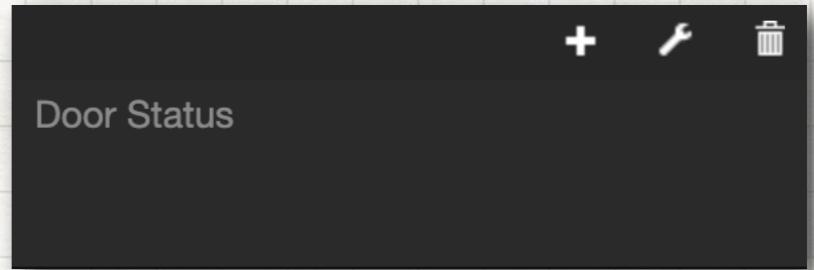
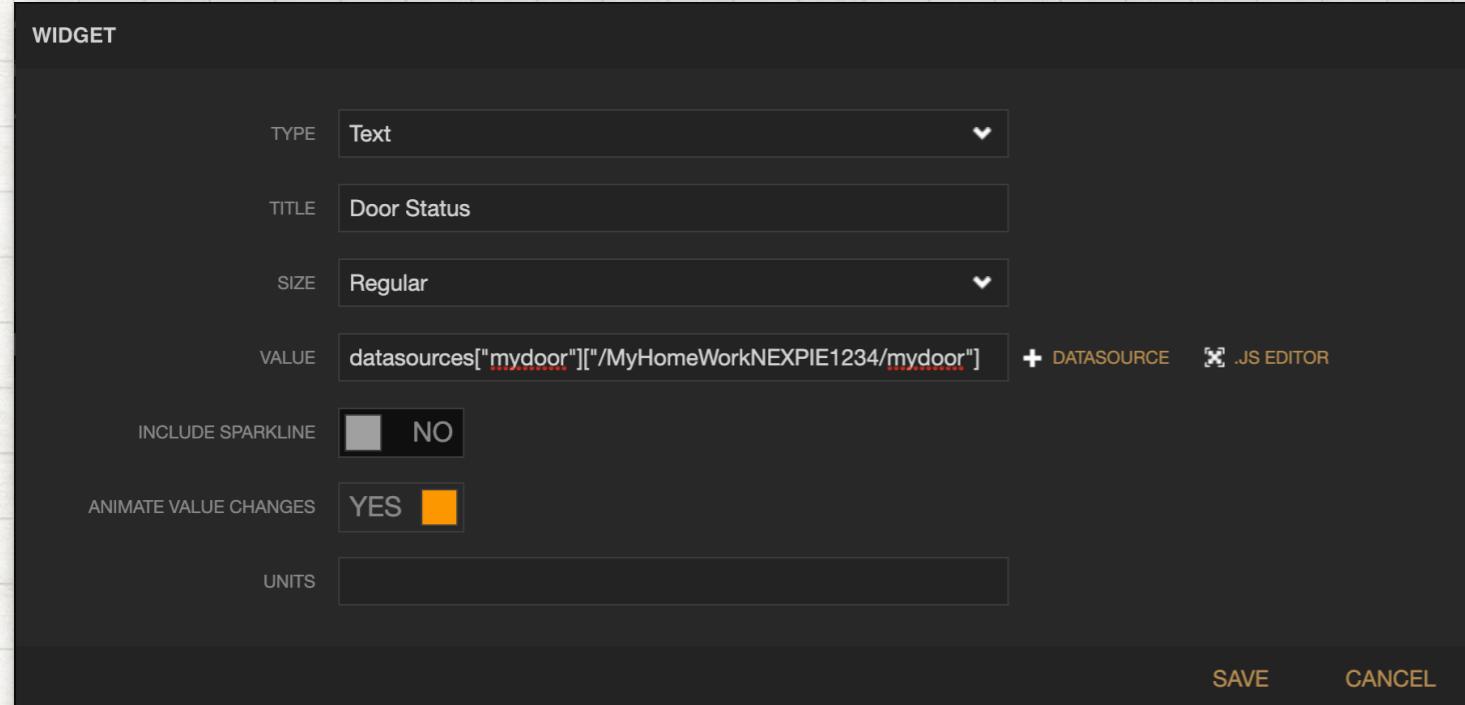
- Topic to publish:** mylamp (highlighted with a red box, labeled 3)
- QoS:** 0 - Almost Once
- Retain:**
- Payload Type:** Strings / JSON / XML / Characters
- Payload:** open
- Buttons:** Publish (blue), a copy icon, and a share icon.
- Log:** topic:mylamp, qos:0, retain:false

Right Panel (Subscriber):

- Subscription:** mylamp (highlighted with a red box, labeled 2)
- Message Log:** open
qos : 0, retain : false, cmd : publish, dup : false, topic : mylamp, message! d : , length : 12, Raw payload : 111112101110

Lab

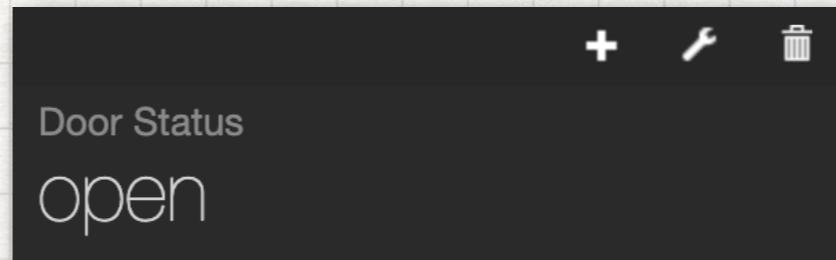
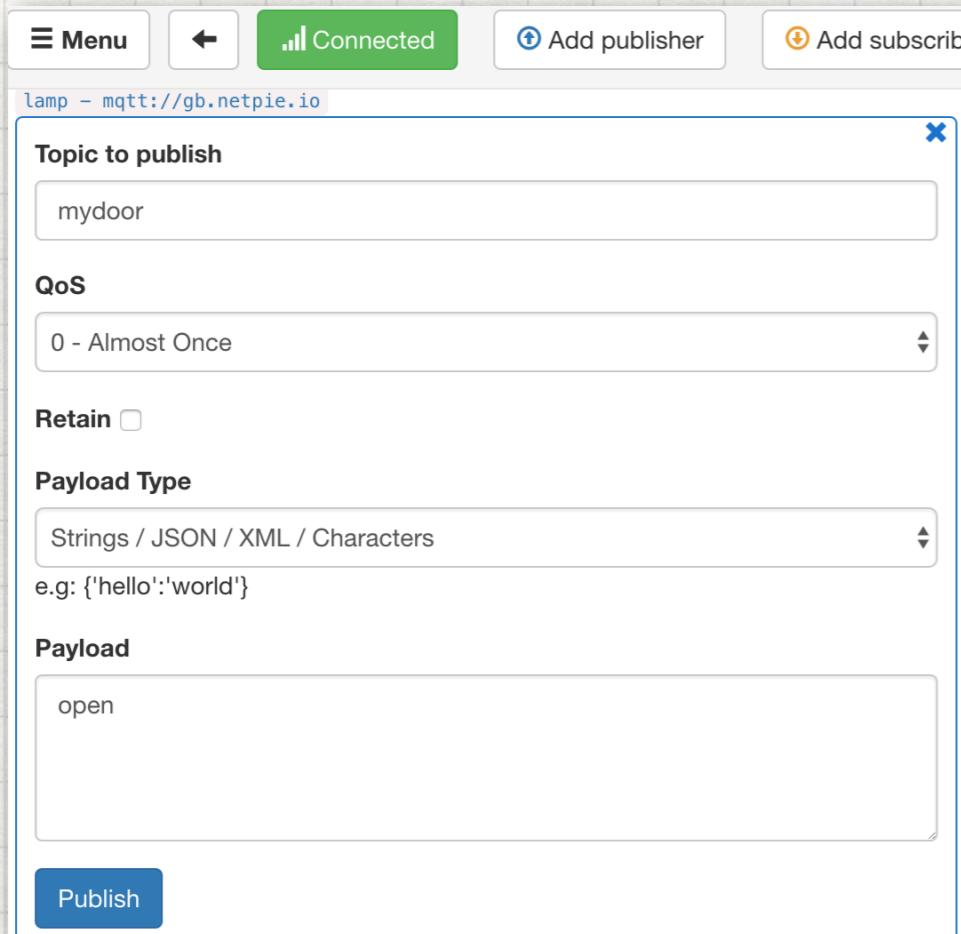
5. ทดสอบรับการ Publish จาก MQTT ด้วย Freeboard (1)



สร้าง WIDGET Text เพื่อทดสอบการ Publish จาก MQTTBox

Lab

5. ทดสอบรับการ Publish จาก MQTT ด้วย Freeboard (2)



Note:

1. Freeboard ได้รับข้อความ open ผ่าน topic mydoor

Note:

1. กำหนด topic จาก MQTTBox เป็น mydoor ตามที่ freeboard ได้ตั้งไว้
2. พิมพ์ open ในช่อง Payload
3. กด Publish

จบ Lab

1. ที่อยู่สไลด์

<https://github.com/ArithmeticOp/SlideDeviceKeyV2>

2. ติดตามบทความ NETPIE และ NEXPIE

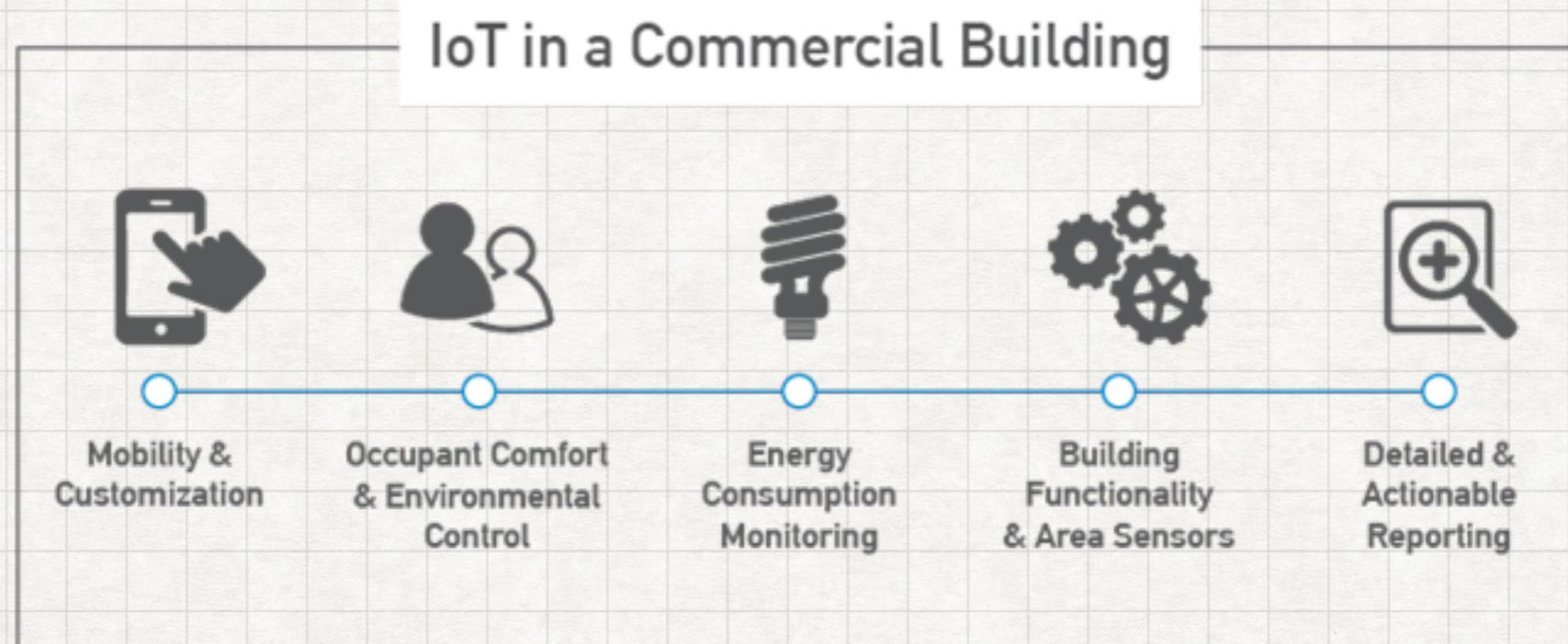
<https://medium.com/@MineArithmeticOp>

3. อายุการทำความรู้จักเพิ่มเติม





Next NETPIE



Features

1. Shadow

lalaland / device / 8faa8ca4-23be-44ce-b85a-3d58048ccc88 Edit

Description	Key
airconditioner	Client ID : 8faa8ca4-23be-44ce-b85a-3d58048ccc88 Token : q65q4dH7Fa5MoDCZoQGKxbhpVaZGGX8 Secret : Rm-L3LPi%0+L3IY+X_yZnY!^NaVgBX@a Status : Offline

#TEST #head #west #5512 #021

Shadow Schema Trigger Save Cancel

Code powered by ace

```
1 [{}]
2   "temp": 25,
3   "humid": 70
4 }
```

Code powered by ace

```
1 [{}]
```

Features

2. Schema

lalaland / device / 8faa8ca4-23be-44ce-b85a-3d58048ccc88 Edit

Description	Key
airconditioner	Client ID : 8faa8ca4-23be-44ce-b85a-3d58048ccc88 Token : q65q4dH7Fa5MoDCZoQGKxbhpVaZGGX8 Secret : Rm-L3LPi%0+L3lY+X_yZnY!^NaVgBX@a
#TEST #head #west #5512 #021	Status : Offline

Shadow Schema Trigger Save Cancel

Code ▾

```
2 "description": "airconditioner",
3 "properties": {
4     "humid": {
5         "maximum": 100,
6         "operation": {
7             "store": {
8                 "ttl": "1d"
9             }
10 },
11         "type": "number",
12         "unit": "%"
13 },
14     "temp": {
15         "maximum": 100,
16         "operation": {
17             "store": {
18                 "ttl": "1d"
19             },
20             "transform": {
21                 "expression": "$.temp = $.temp * 32"
22             }
23 },
24         "type": "number",
25         "unit": "C"
26 }
```

powered by ace

Ln:1 Col:2

Features

3. Trigger

lalaland / device / 8faa8ca4-23be-44ce-b85a-3d58048ccc88 Edit

Description	Key
airconditioner	Client ID : 8faa8ca4-23be-44ce-b85a-3d58048ccc88 Token : q65q4dH7Fa5MoDCZoQGKxbthpVaZGGX8 Secret : Rm-L3LPi%0+L3IY+X_yZnY!^NaVgBX@a
#TEST #head #west #5512 #021	Status : Offline

Shadow Schema Trigger Save Cancel

Code powered by ace

```
1  {
2    "enabled": true,
3    "trigger": [
4      {
5        "action": "LINENOTIFY",
6        "event": "SHADOW.UPDATED",
7        "condition": "$.temp > 25",
8        "msg": "{$.deviceid} มีอุณหภูมิปัจจุบัน {{ $.temp }} ซึ่งมากกว่า 25 องศาแล้ว",
9        "option": {
10          "url": "https://notify-api.line.me/api/notify",
11          "linetoken": "abcdefghijklmnopqrstuvwxyz0123456789"
12        }
13      }
14    ]
15 }
```

Features

4. Eventhook

lalaland / hook / LINENOTIFY

[Edit](#)

Description

Configuration

Enable :

Type : WEBHOOK

[Save](#) [Cancel](#)

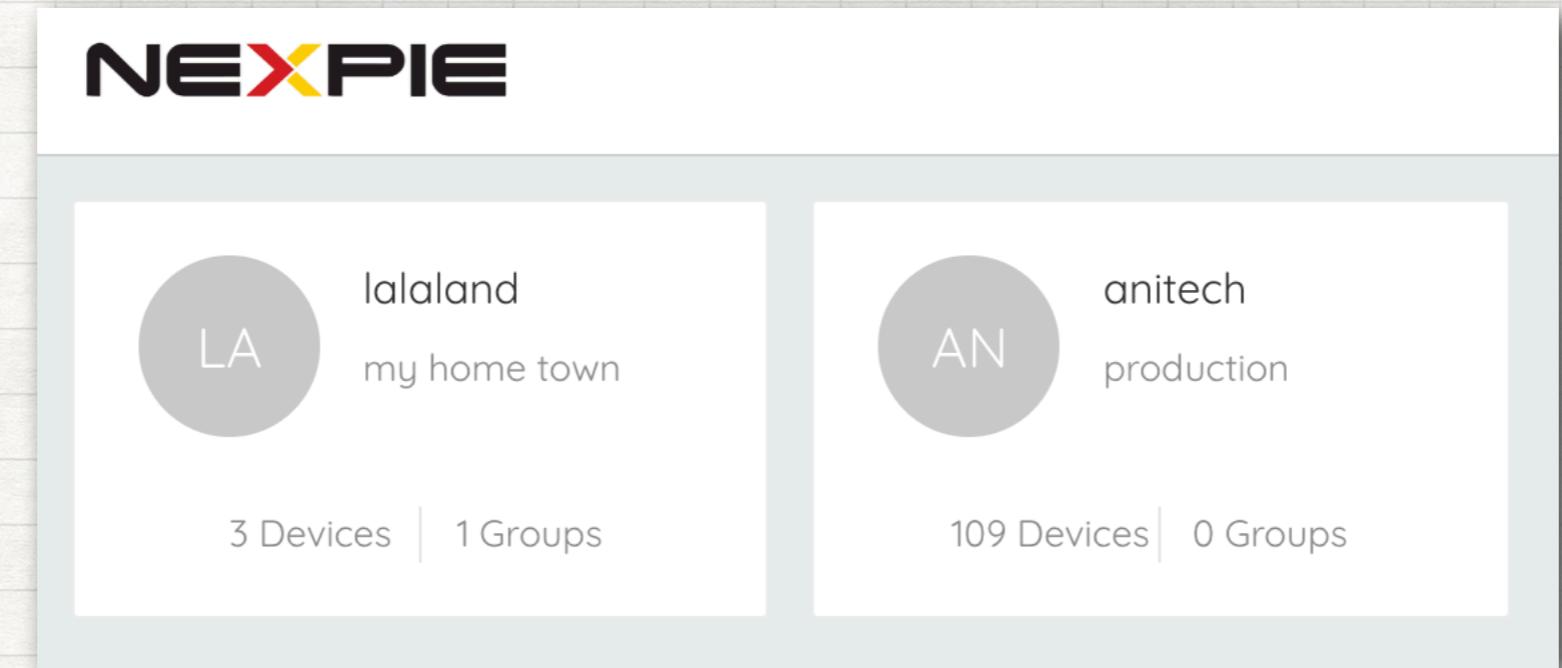
Tree ▾

Select a node...

- object {4}
 - body : message={{msg}}
 - header {2}
 - Authorization : Bearer {{option.linetoken}}
 - Content-Type : application/x-www-form-urlencoded
 - method : POST
 - uri : {{option.url}}

Features

5. រូបແບນការໃຊំងាន (1)



Project

lalaland / group / MyHomeSweetHome				
<input type="checkbox"/>	Name	Tags	Create Date	
<input type="checkbox"/>	8faa8ca4-23be-44ce-b85a-3d58048ccc88 airconditioner	#TEST #head #west #5512 #021	2019-04-25 16:05	
<input type="checkbox"/>	centerLightBedroom My light Center in Bedroom.	##bedroom	2019-04-25 15:33	

Group

Features

5. រូបແບບការໃຊំងាន (2)

lalaland / device					Create
<input type="checkbox"/>	Name	Tags	Group		Create Date
<input type="checkbox"/>	70ae06de-f63e-4bee-93a3-0b94346c009e	#EAF594BE73	-		2019-07-02 16:37
<input type="checkbox"/>	8faa8ca4-23be-44ce-b85a-3d58048ccc88 airconditioner	#TEST #head #west #5512 #021	MyHomeSweetHome		2019-04-25 16:05
<input type="checkbox"/>	centerLightBedroom My light Center in Bedroom.	##bedroom	MyHomeSweetHome		2019-04-25 15:33

Device

ผลงาน



Solar Roof

ผลงาน

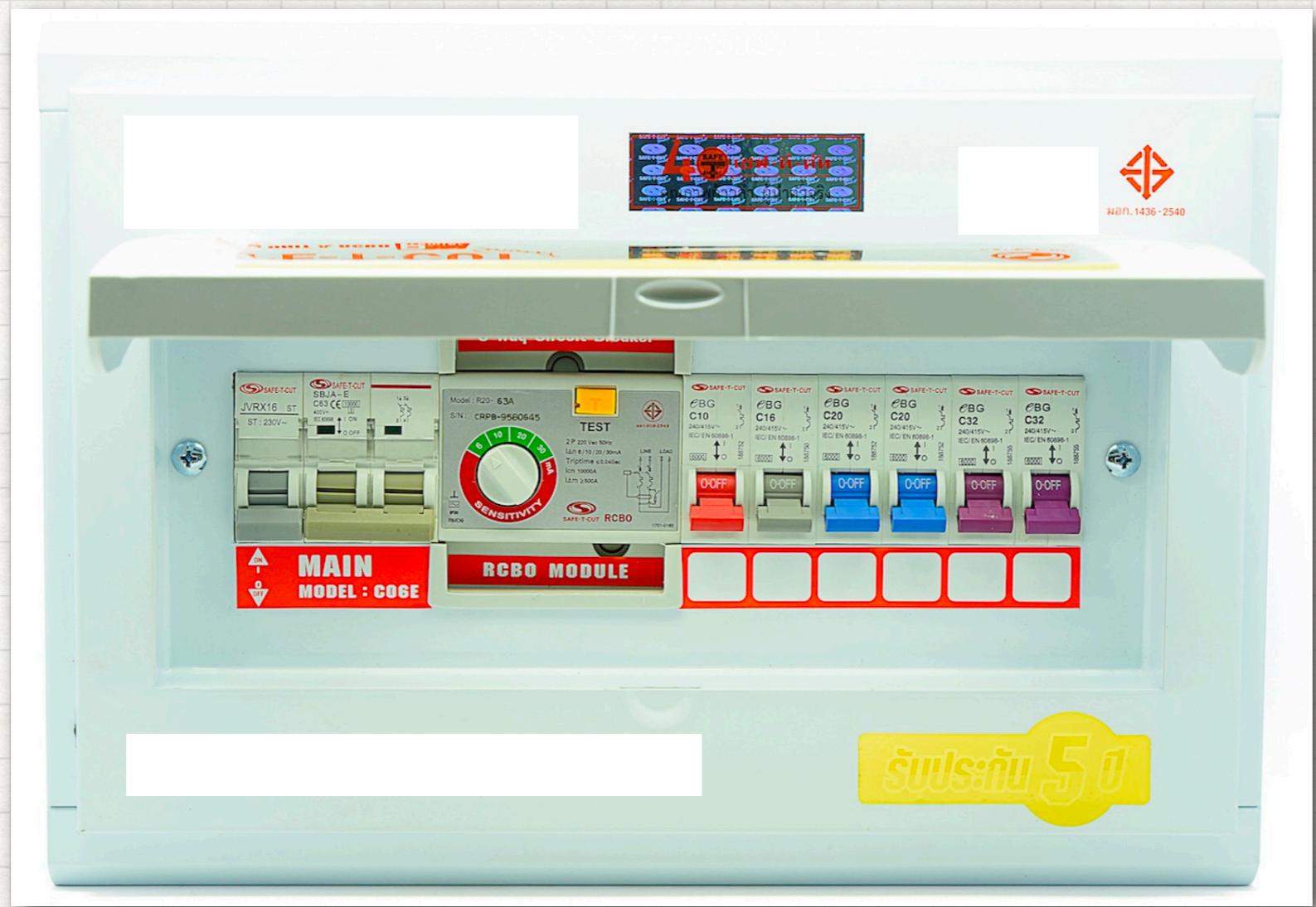


The advertisement features a central image of the H1000 Smart Wireless Powerstrip, which is a grey power strip with four outlets and a built-in smartphone-like screen displaying a power control interface. To the right of the device is a smartphone showing the 'plug01' app interface, which includes a power switch icon, current consumption data (W, A, V), and timer/timer-down controls. The background of the ad is a stylized city skyline at sunset.

ปลั๊ก IoT ตัวแรก ของไทย
H1000
Smart Wireless
Powerstrip

Smart Plug

ผลงาน



Smart Cut

ผลงาน



Smart Farm