Advantech AE Technical Share Document

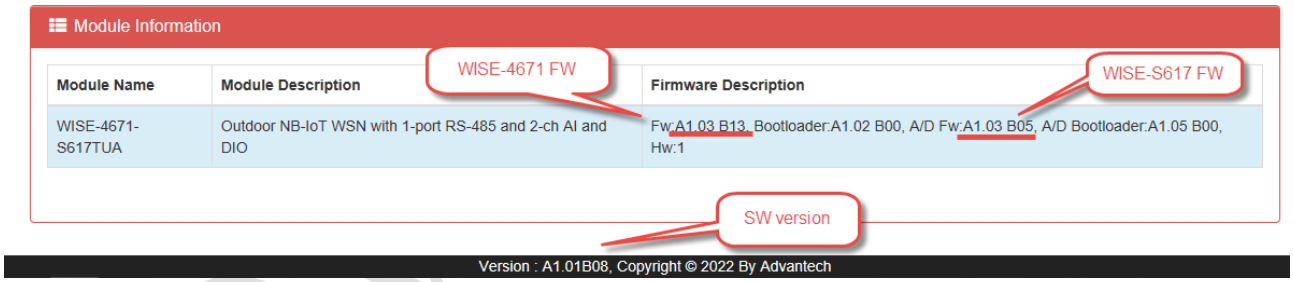
Date	2022/3/15	**SR#**	1-4932530911
Category	■FAQ □SOP	**Related OS**	N/A
Abstract	How to connect and send data from WISE-4x71 to Ubidot?		
Keyword	MQTT, Ubidot, NBIoT		
Related Product	WISE-4471, WISE-4671		

■ Problem Description:

This document shows how to send data to Ubidot through MQTT protocol with NBIoT module.

■ Answer:

Testing environment:
WISE-4671: A1.03 B14. (A1.03 B13 is unable to close subscription function.)
WISE -S617TUA: A1.03 B05
WISE Studio: any version with beta software version: A101B08.

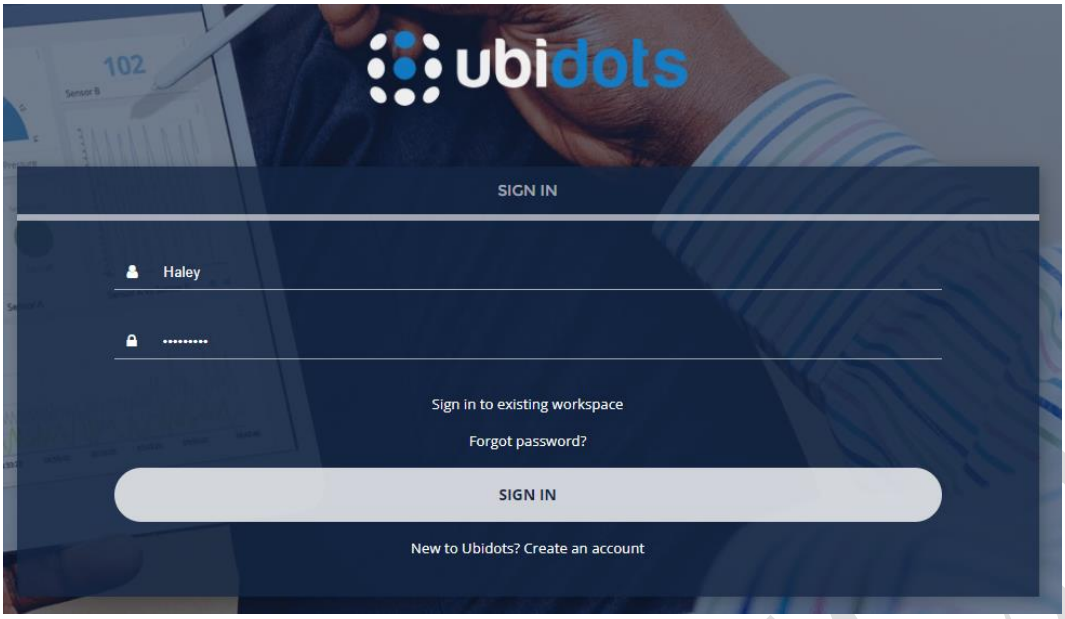


Step 1. Sign-in.

URL: https://stem.ubidots.com/accounts/signin/

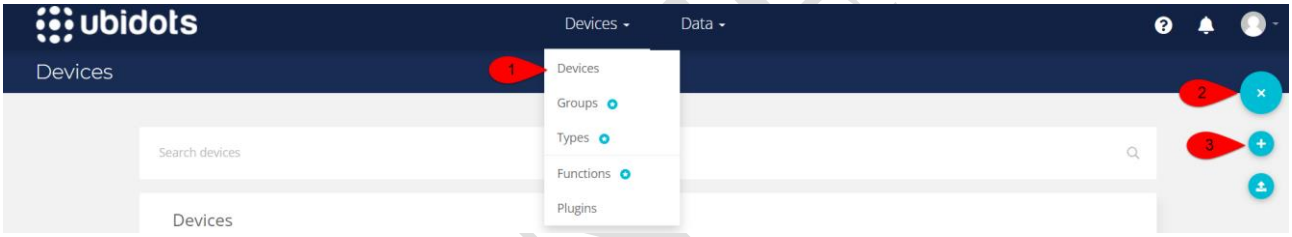
Ubidot Document: https://help.ubidots.com/en/articles/570008-ubidots-mqtt-broker

ADVANTECH

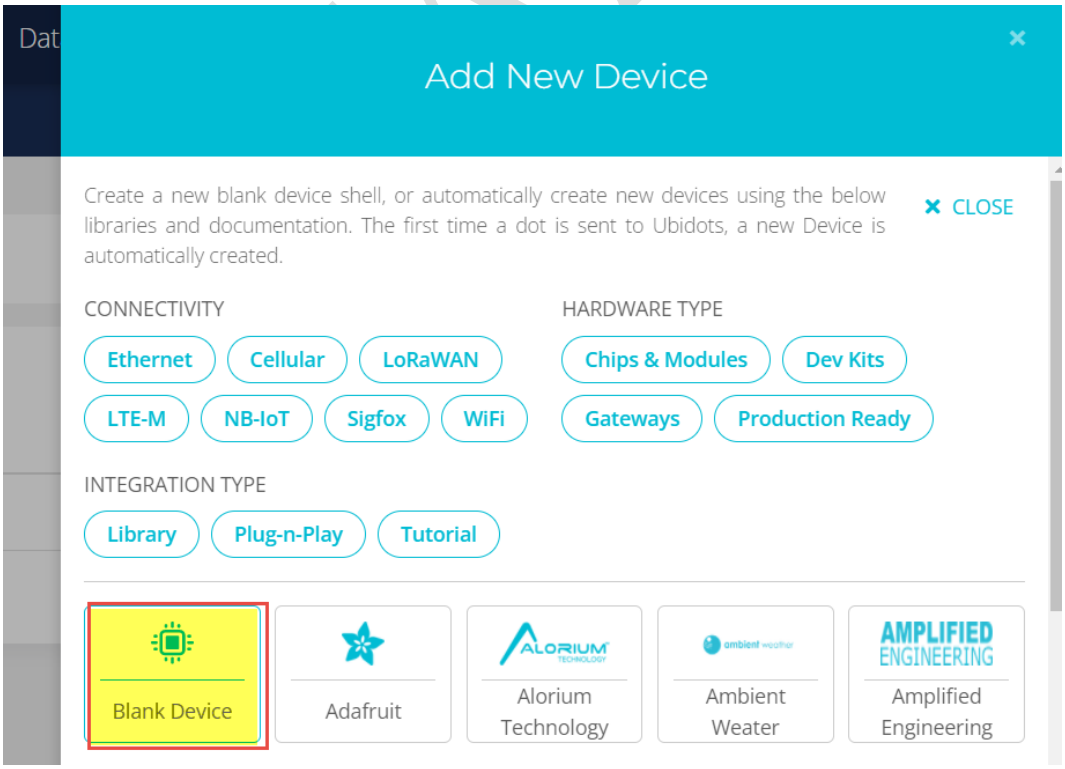


Step 2. Create a device on Ubidot.

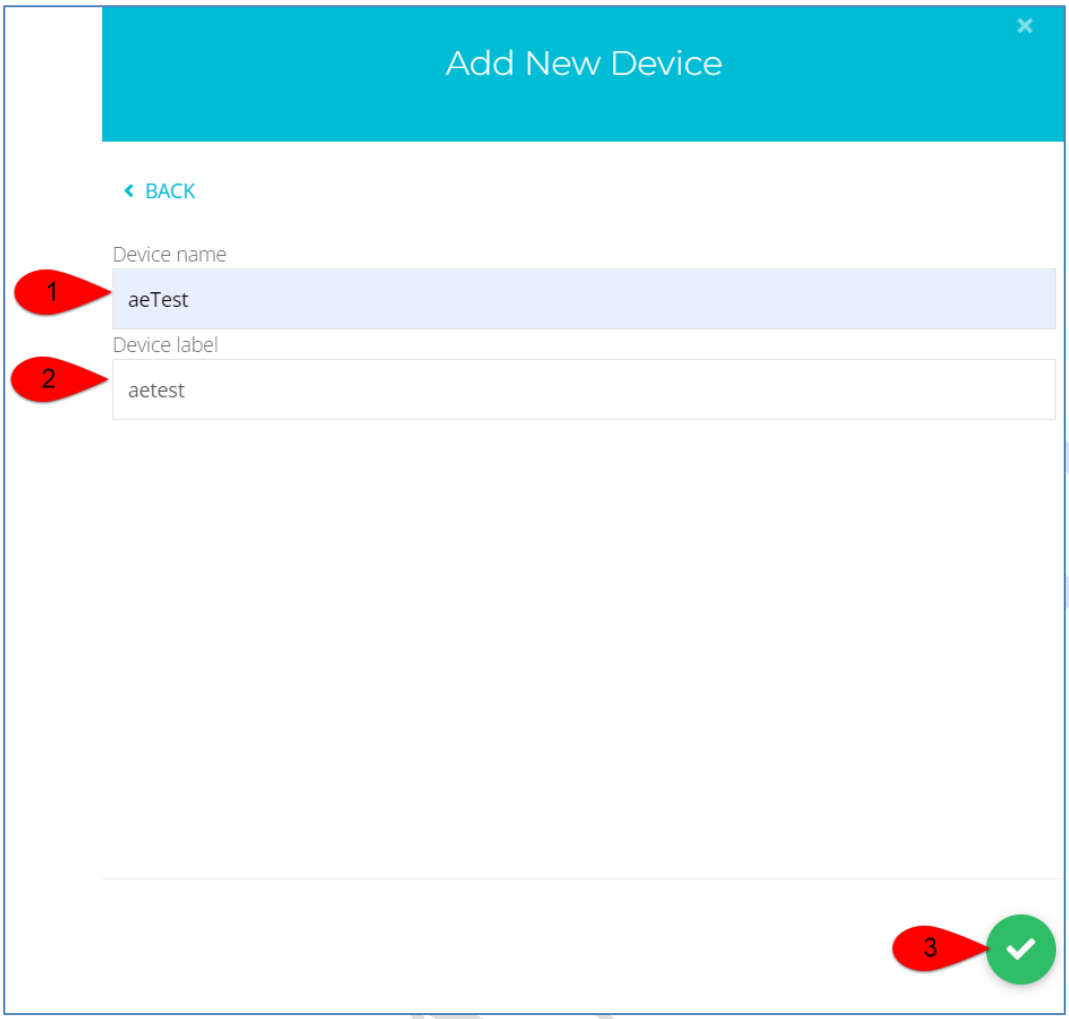
Go to “devices”, click on “+” button, and then click “+” button.



Click on “blank device”.



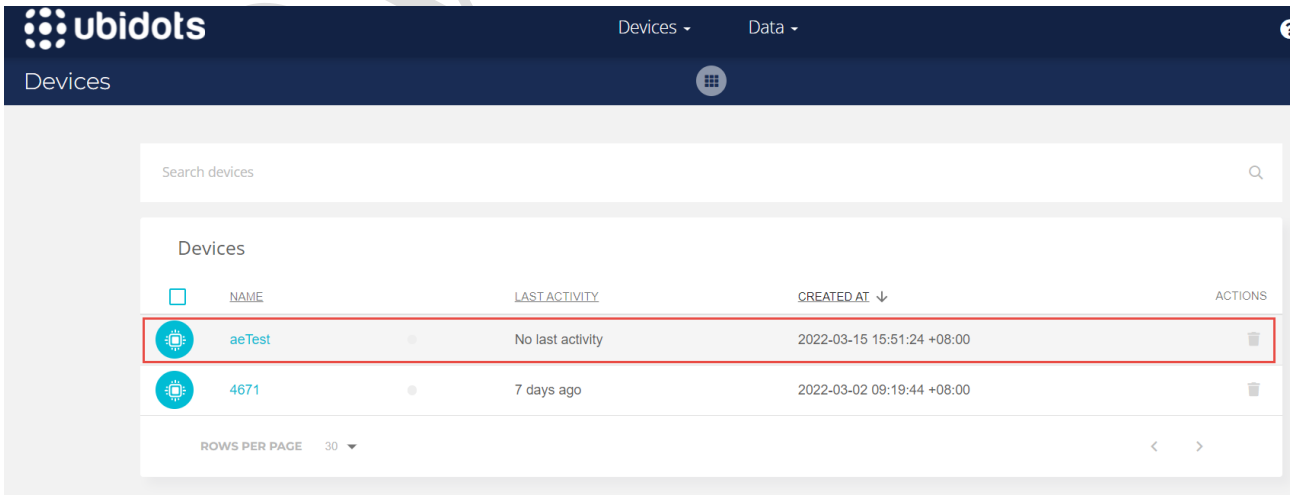
Add a new device.



Device name: user define. “aetest” is used in this demo.

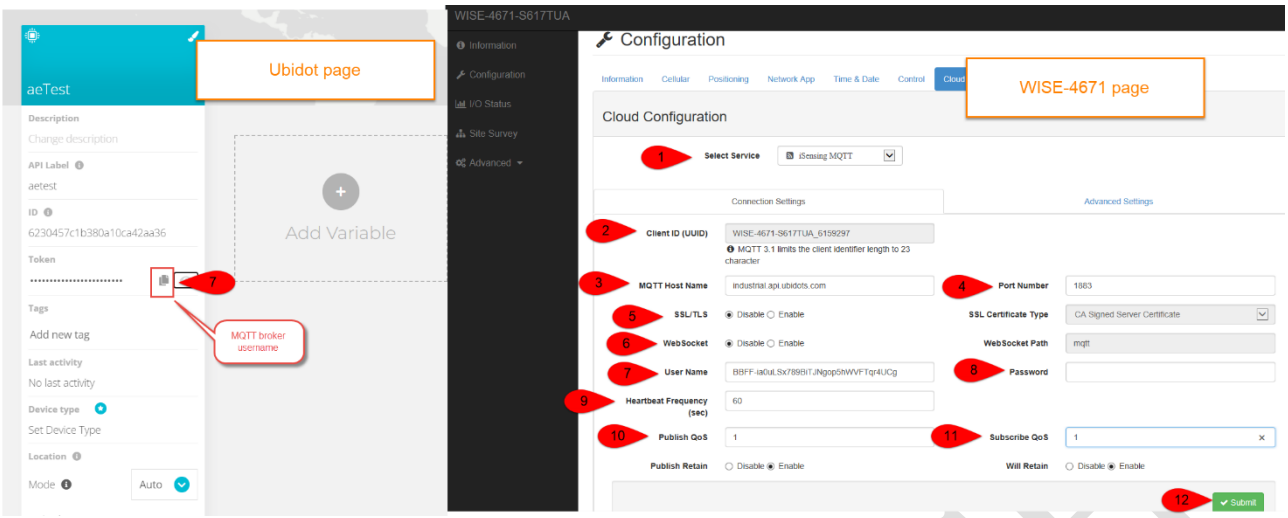
Device label: user define. “aetest” is used in this demo.

Click on ∨ to complete the setting and the result is shown in the following figure.

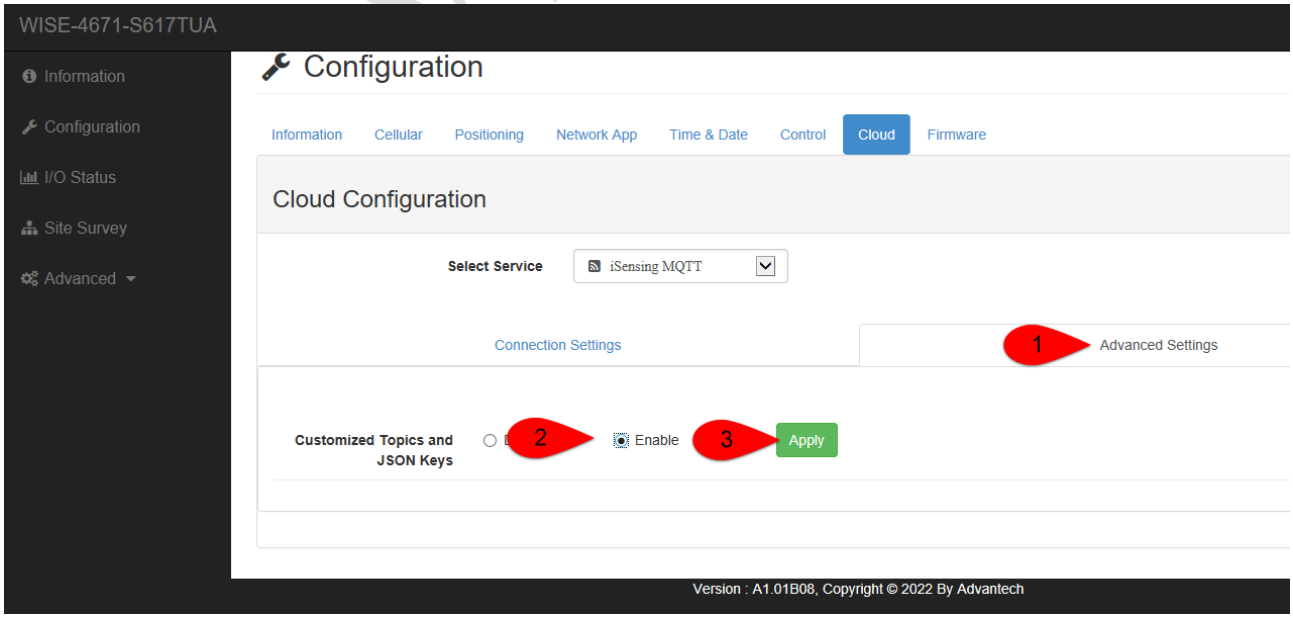


Step 3. Type-in the MQTT connection information from Ubidot to WISE-4671.

Go to “configuration” / “cloud” page on WISE-Studio.

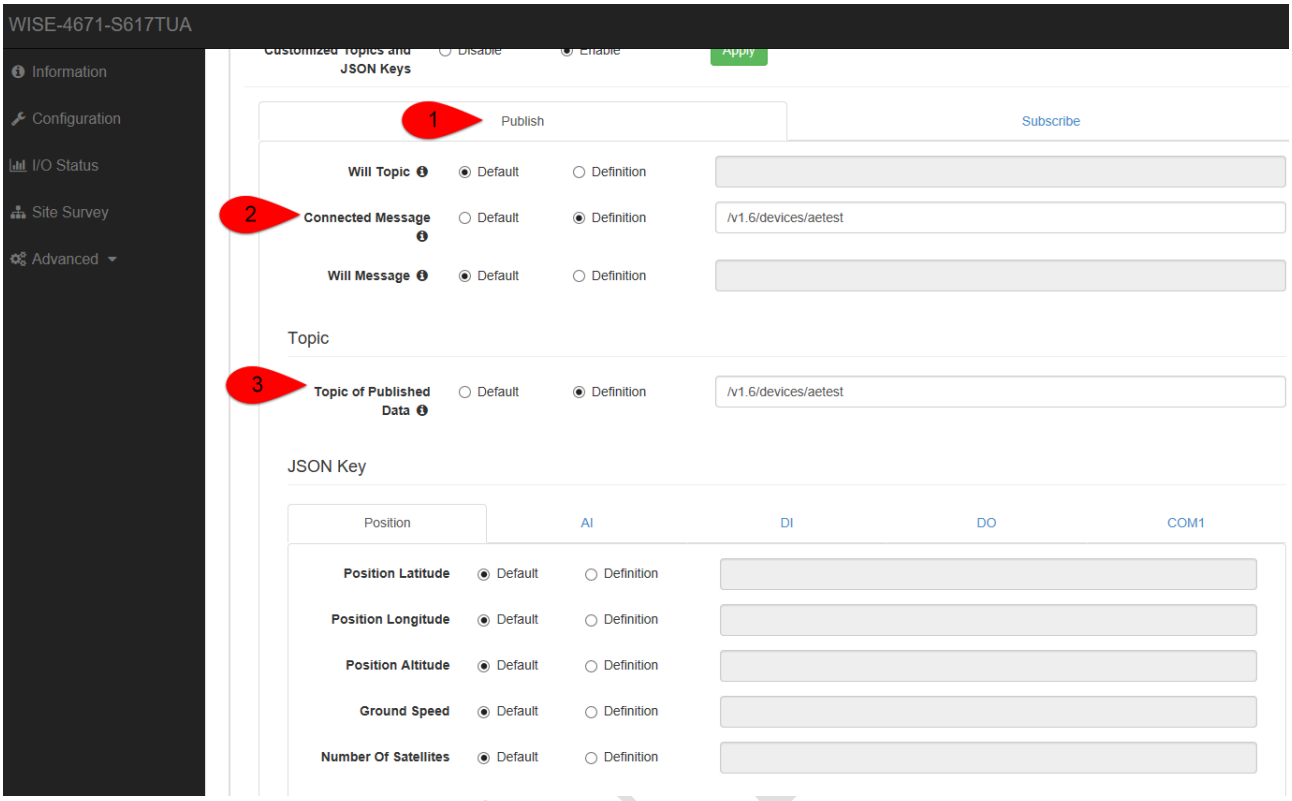


1. Select service: iSensingMQTT.
2. Client ID: this UUID is able to be modified in “configuration” / “information” page on WISE Studio.
3. MQTT host name: “industrial.api.ubidots.com”. Double check the Ubidot Document if unable to connect with the broker. In case it changes in another day.
4. Port number: 1883
5. SSL/TLS: disable.
6. WebSocket: disable.
7. Username: The value is copied from the “device” / “token” on Ubidot.
8. Password: keep this field blanc.
9. Heartbeat frequency: The unit is second.
10. Publish QoS: 0, 1, or 2. Depend on user.
11. Subscribe QoS: 0, 1, or 2. Depend on user.
12. Submit: click on “submit” button to complete the setting.

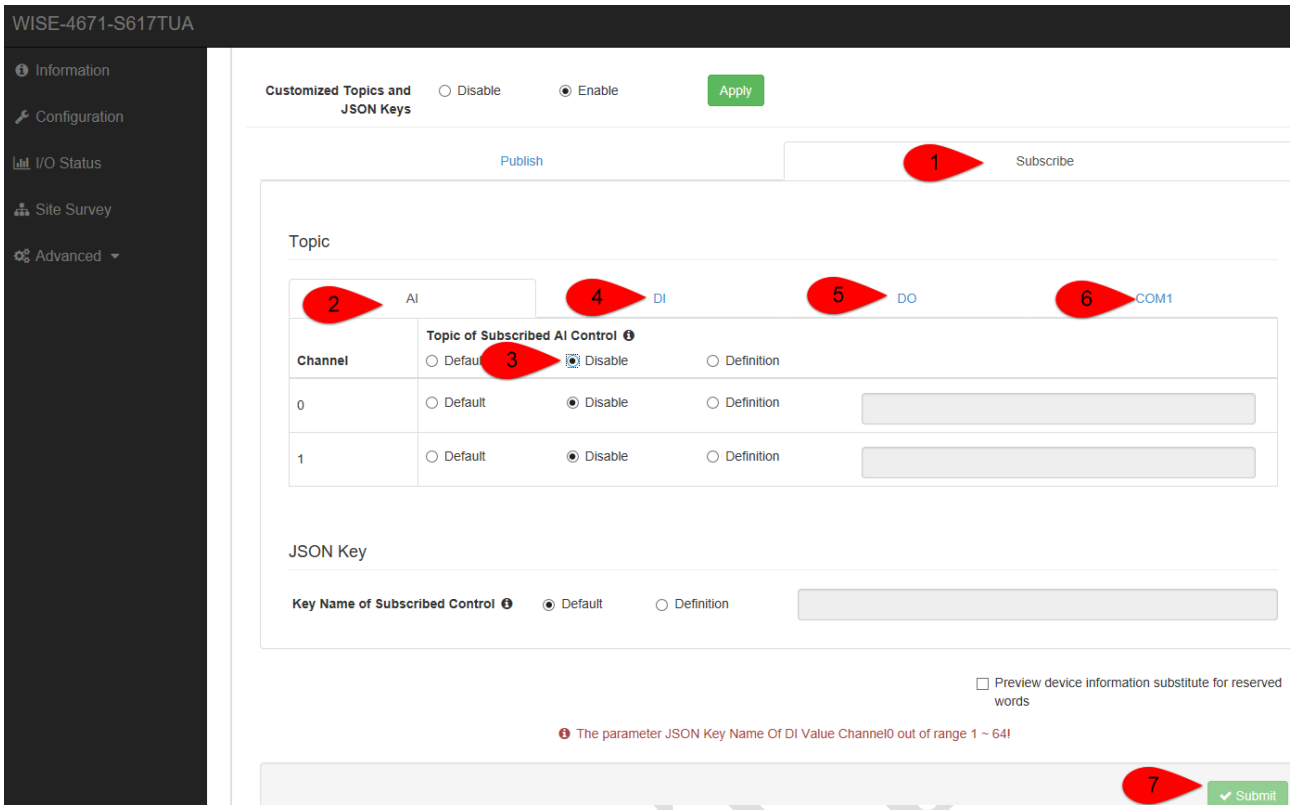


1. Advanced setting: this function is able to let the user to customize the topic and payload to fulfill the requirement of the platform, Ubidot.

2. Customized topics and JSON keys: enable.
3. Apply: click on “apply” to start the setting page.

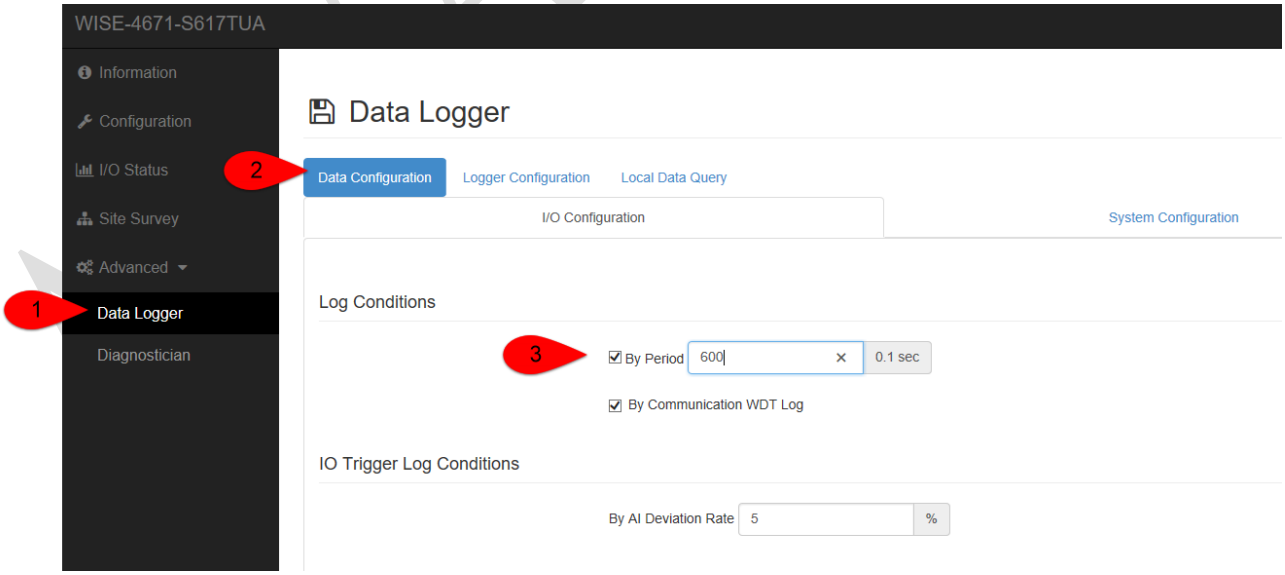


1. Publish: setup publish function.
2. Connected message: /v1.6/devices/{device name created in previous step}. “/v1.6/devices/aetest” is used in this demo.
3. Topic of published data: same like the #2. “/v1.6/devices/aetest” is used in this demo.

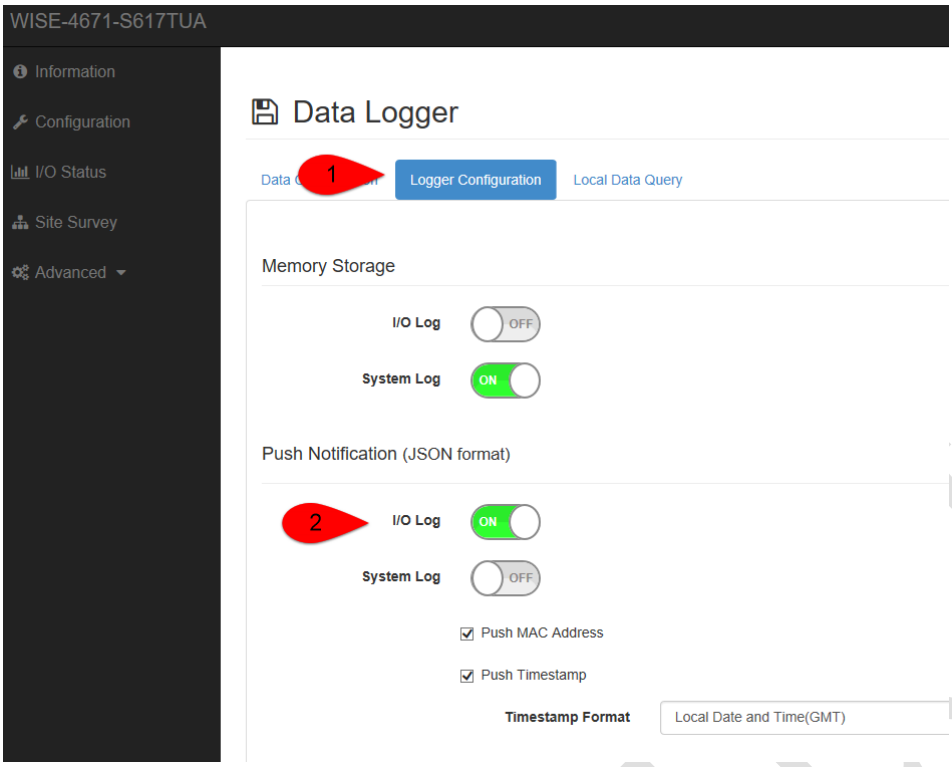


1. Subscribe: test the connection step by step. Disable “subscribing” function means testing the “publishing” function first
2. Topic of subscribed AI/DI/DO/coil/register control: disable.
3. Submit: click on “submit” to complete the setting.

Step 4. Enable publishing function in “log” function.



Go to “data logger” function / “data configuration” tab and setup “by period”. This period parameter is the data upload to MQTT broker interval.



Go to “logger configuration” tab and enable “I/O log”. This function is to upload I/O data to MQTT broker. Then click on “submit” to complete the setting.

Results:

Due to Ubidot is unable to parse Boolean data type, the DI and DO is not able to show on the dashboard. Other values are grow automatically.

