

Advantech AE Technical Share Document

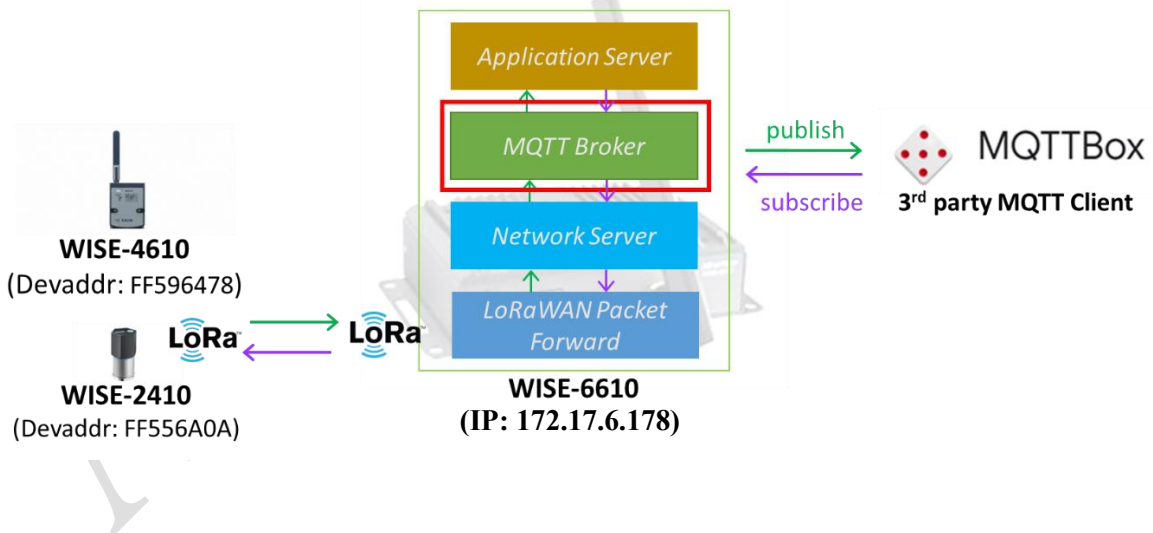
Date	2021/09/09	SR#	1-4637803751
Category	<input type="checkbox"/> FAQ <input checked="" type="checkbox"/> SOP	Related OS	N/A
Abstract	How to use MQTT client to subscribe WISE-2410/WISE-4610 data from WISE-6610's MQTT Broker.		
Keyword	WISE-6610, MQTT, MQTT Broker, subscribe, LoRaWAN, LoRa		
Related Product	WISE-6610, WISE-2410, WISE-4610, BB-WSW		

■ Description

This document shows that how to use 3rd party MQTT client to subscribe WISE-2410/WISE-4610 data from WISE-6610's MQTT Broker.

Here, we take **WISE-2410 with devaddr: FF556A0A** and **WISE-4610 with devaddr: FF596478** as LoRaWAN nodes' example.

- User can subscribe uplink topic in raw data from WISE-6610's MQTT broker.
- User can subscribe Advantech topic in parsed data in from WISE-6610's MQTT broker.



Answer

Step 1. Follow the FAQ below to setup WISE-2410 or WISE-4610 connected to WISE-6610. But does not require the Node-Red dashboard steps in the FAQ document.

FAQ: How to connect WISE-2410 with WISE-6610?

<https://www.advantech.tw/support/details/faq?id=1-1RTJSL4>

FAQ: How to connect WISE-4610 with WISE-6610?

<https://www.advantech.tw/support/details/faq?id=1-1QFTV45>

Step 2. Check whether there are **Received Frames** in Network Server.

Server Admin

Infrastructure

- Gateways
- Networks
- Multicast Channels
- Events
- Devices
- Backends
- Received Frames**
- Transmission Frames

Received Frames

▼ Add filter ⊕ Export 🗑 Purge

<input type="checkbox"/>	Received	Application	DevAddr	MAC	U/L RSSI	U/L SNR	FCnt	Confirm	Port	Data
<input type="checkbox"/>	2021-07-29 19:18:04	WISE6610_Handler	FF596478	74FE48FFFE42F8F8 74FE48FFFE4FBB1A	-21 -47	12.5 11.8	1,649	✓	1	017107180100788E02819B
<input type="checkbox"/>	2021-07-29 19:18:01	WISE6610_Handler	FF596478	74FE48FFFE42F8F8 74FE48FFFE4FBB1A	-23 -43	8.5 7.5	1,648	✓	1	017000083040411000060
<input type="checkbox"/>	2021-07-29 19:18:56	WISE6610_Handler	FF596478	74FE48FFFE42F8F8 74FE48FFFE4FBB1A	-25 -53	11.8 7.8	1,648	✓	1	017000083040411000060
<input type="checkbox"/>	2021-07-29 19:18:54	WISE6610_Handler	FF596478	74FE48FFFE42F8F8 74FE48FFFE4FBB1A	-16 -40	7 8.2	1,647	✓	1	016F04011100083040311
<input type="checkbox"/>	2021-07-29 19:18:48	WISE6610_Handler	FF596478	74FE48FFFE42F8F8 74FE48FFFE4FBB1A	-21 -46	11 9.8	1,647	✓	1	016F04011100083040311
<input type="checkbox"/>	2021-07-29 19:18:46	WISE6610_Handler	FF596478	74FE48FFFE42F8F8 74FE48FFFE4FBB1A	-27 -48	9.5 9	1,646	✓	1	016E010083040011000083
<input type="checkbox"/>	2021-07-29 19:18:41	WISE6610_Handler	FF596478	74FE48FFFE42F8F8 74FE48FFFE4FBB1A	-18 -47	8.5 9.8	1,646	✓	1	016E010083040011000083
<input type="checkbox"/>	2021-07-29 19:18:38	WISE6610_Handler	FF596478	74FE48FFFE42F8F8 74FE48FFFE4FBB1A	-16 -41	8.8 9	1,645	✓	1	016D0800000080FF7F1002
<input type="checkbox"/>	2021-07-29 19:18:33	WISE6610_Handler	FF596478	74FE48FFFE42F8F8 74FE48FFFE4FBB1A	-16 -42	7.2 7.2	1,645	✓	1	016D0800000080FF7F1002
<input type="checkbox"/>	2021-07-29 19:18:31	WISE6610_Handler	FF596478	74FE48FFFE42F8F8 74FE48FFFE4FBB1A	-24 -43	10.8 8.8	1,644	✓	1	016C0080FF7F340A3F2000
<input type="checkbox"/>	2021-07-29 19:18:26	WISE6610_Handler	FF596478	74FE48FFFE42F8F8 74FE48FFFE4FBB1A	-18 -47	8.8 8.2	1,644	✓	1	016C0080FF7F340A3F2000

Step 3. Go to “Network Server” → “Backends” → “Connectors” → Please check “WISE_6610_Broker” has been **created** and **enabled**.
 (※**DO NOT** change the content of “Publish Uplinks” and “Received Topic”. Please keep these as default.)

Server Admin

Infrastructure

- Gateways
- Networks
- Multicast Channels
- Events
- Devices
- Profiles
- Commissioned
- Activated (Nodes)
- Ignored
- Backends
- 1. Handlers**
- 2. Connectors**

Connectors List

⊕ Export + Create

<input type="checkbox"/>	Name	Application	URI	Publish Uplinks	Received Topic	Enabled	Failed
<input type="checkbox"/>	WISE6610_Broker	WISE6610_Handler	mqtt://127.0.0.1:1883	uplink({devaddr})	downlink({devaddr})	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	WISE6610_Websocket	WISE6610_Handler	ws:	/ws/uplink({devaddr})		<input checked="" type="checkbox"/>	

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Step 4. Go back to **Gateway Setting**, enable “MQTT Broker” as “On” and click “Save”.

Navigation

- LoRaWAN Radio
- Network Server
- MQTT**
- Storage

LoRaWAN Gateway Settings

MQTT Broker

2. MQTT Broker Enable

On Enable the local MQTT broker.

MQTT Broker Port

1883 The local MQTT broker TCP port number (1 - 65535).

Step 5. Enable “Application Server” as “On” and click “Save”.

Navigation

- LoRaWAN Radio
- Network Server
- MQTT
- 1. orage**
- Application Server**
- Settings
- Status

LoRaWAN Gateway Settings

Advantech Application Server Setting

2. Application Server Enable

On Enable the Local Application Server.

Application Server Connect MQTT Address

127.0.0.1 Application Server remote MQTT broker address.

Application Server Connect MQTT Port

1883 Application Server remote MQTT broker TCP port number (1 - 65535).

3. Save

Set up MQTT clients (for example, MQTTBox) to subscribe topic from WISE-6610's **MOTT Broker**.

- MQTT Client Name: Users can define any name. (**LoRa_172.17.6.178** as example.)
- MQTT Client id: User can define the ID or use default automatic generated ID.
- Host: The **URL** and **port** of **MQTT broker**. (**172.17.6.178:1883** as example.)
- Username: The user name of MQTT broker. WISE-6610's broker doesn't setup username
Users can keep it **blank** here.
- Password: The password of MQTT broker. WISE-6610's broker doesn't setup password.
Users can keep it **blank** here.
- Protocol: User can select **tcp** for subscribing WISE-6610's broker. (**tcp** as example.)

※If users would like to use **Websocket** protocol, please follow the FAQ below to receive data from WebSocket server.

FAQ: How to receive data from WebSocket server on WISE-6610.

<https://www.advantech.tw/support/details/faq?id=1-21ZKL89>

Step 6. Subscribe Topic:

1. **uplink/#?**: Subscribe **all** LoRaWAN nodes' uplinked **raw data**.

⇒ Users may see different node's uplink topic's **raw data**.

[Take **devaddr: FF556A0A** (WISE-2410) and **devaddr: FF596478** (WISE-4610-S617) as example.]

2. **"uplink/{devaddr}"**: Subscribe **specific** LoRaWAN node's uplinked **raw data**.

⇒ Users may see specific node's uplink topic's **raw data**.

[Take **devaddr: FF556A0A** (WISE-2410) as example]

3. “Advantech/{devaddr}/data”: Subscribe **specific** LoRaWAN node’s **parsed data**.
Users may see specific node’s Advantech topic’s **parsed data**. It shows the value of temperature, acceleration peak, etc...
[Take devaddr: FF556A0A (WISE-2410) as example]

4. “Advantech+/data”: Subscribe **all** LoRaWAN node’s **parsed data**.
Users may see all node’s Advantech topic’s **parsed data**. It shows the value of temperature, acceleration peak, etc...

5. **Packet forward**: Subscribe all data from LoRaWAN Gateway.
If users would like to use “**Packet Forward**”, please refer to FAQ
=> <https://www.advantech.tw/support/details/faq?id=1-1X39ZYU>

