Advantech AE Technical Share Document

Date	2024/08/07	**SR#**	
Category	■FAQ □SOP	**Related OS**	N/A
Abstract	How to Troubleshooting When Modbus/TCP Client Cannot Read the Value From WISE-6610v2 Modbus/TCP Server?		
Keyword	WISE, LoRaWAN, vibration, build-in sensor, Modbus data		
Related Product	WISE-2410 series, WISE-4610 series, WISE-6610v2		

■ Problem Description:

User can use the Modbus/TCP Client to query WISE LoRa Node data from WISE-6610v2 Modbus/TCP server. But user cannot read the value or doesn't get the response from Modbus/TCP server sometimes. This document will show how to troubleshooting for this situation step by step.

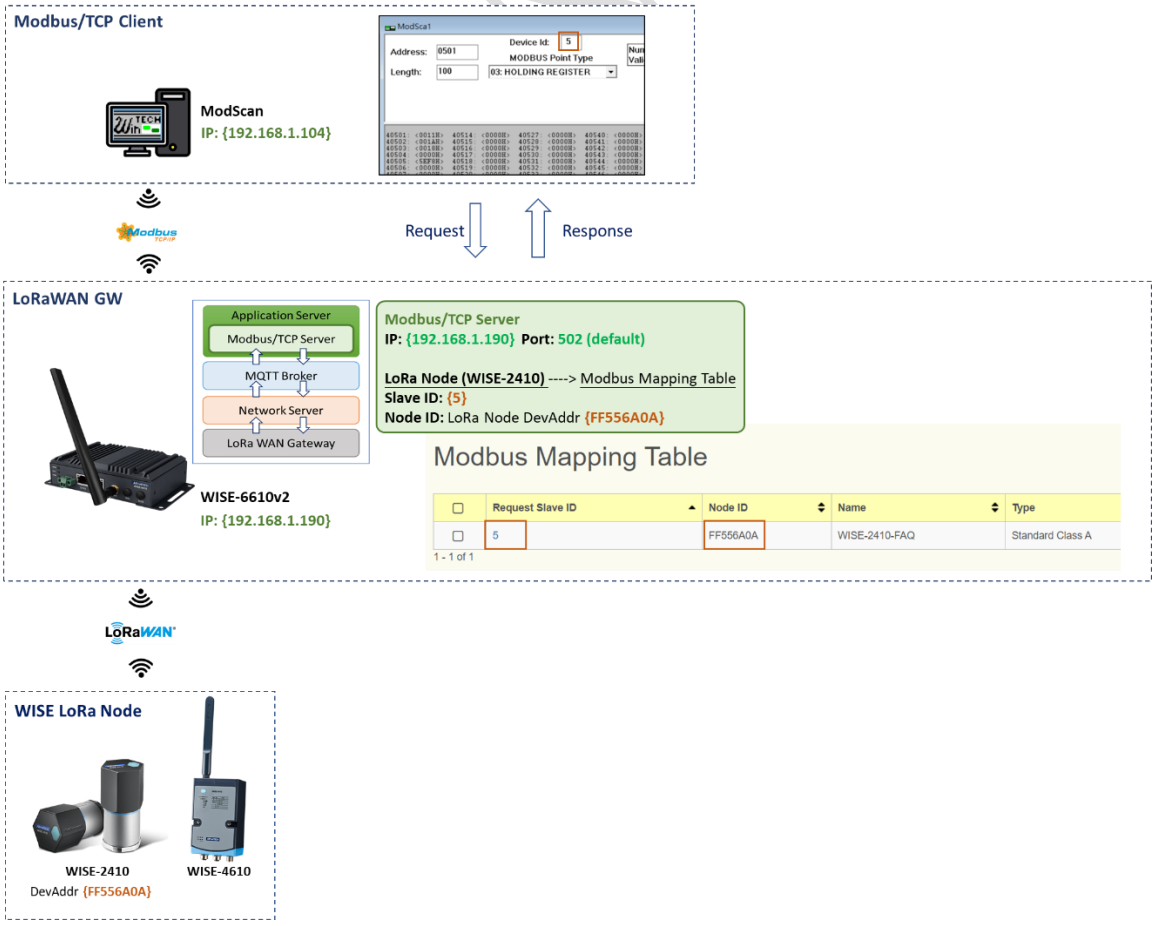


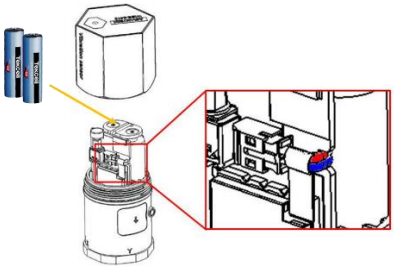
Figure 1. Topology

■ Prerequisite:

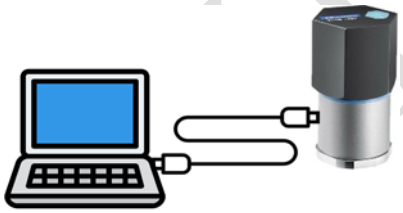
- WISE-2410 Firmware Version: A1.13.B03 or later.
- WISE-4610 Firmware Version: A2.03.B05 or later.
- WISE-6610v2 Firmware Version: 1.0.16 or later.
- Modbus/TCP Client Version: 8.A00-10

■ Solution:

1. Please make sure WISE-2410 is powered by batteries or micro USB.



(A) Powered by Batteries.

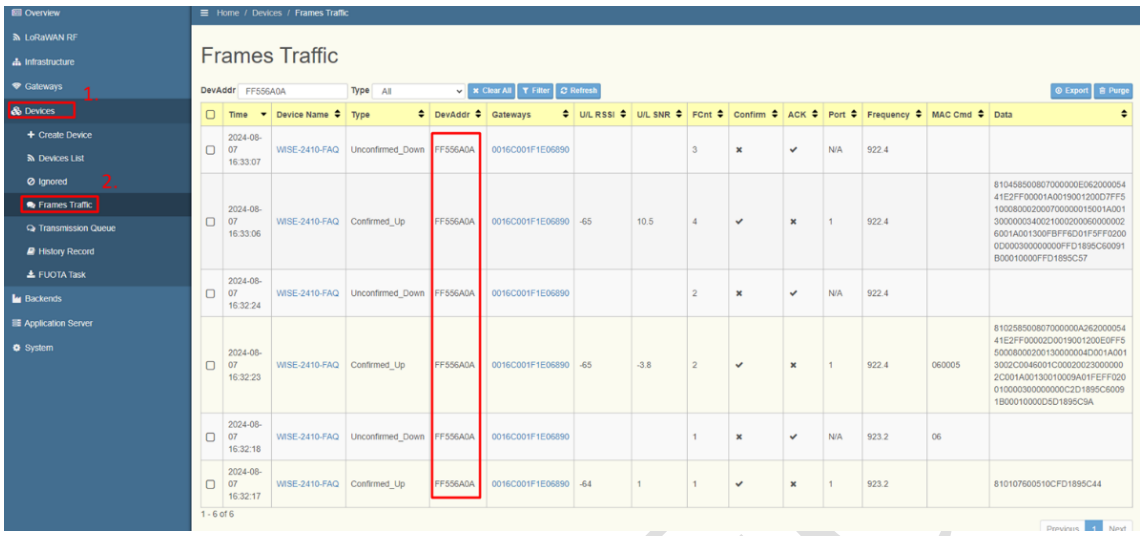


(B) Powered by micro USB.

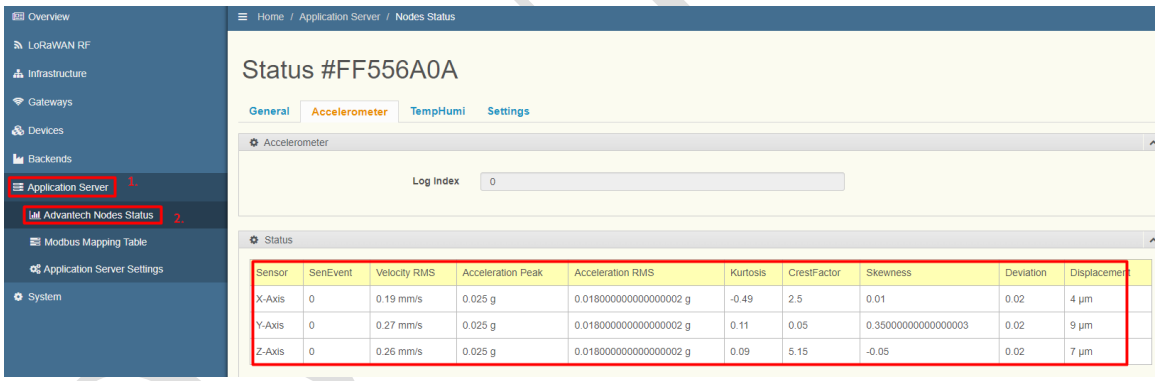
2. Make sure the LoRa Node had been created into **WISE-6610v2 Network Server > Device List**. In this case, you can find the WISE-2410 which device address is **"FF556A0A"** is created in WISE-6610v2 Device List page.

☐	000443BC	OTAA	ON	000443BC	00137A10000443BC	AS923_WISE6610_Handler	EVA-2510	2	1	28	2024-08-07 13:57:44	SF10 BW125	
☐	000444BA	OTAA	ON	000444BA	00137A10000444BA	AS923_WISE6610_Handler	EVA-2210	6	0	28	2024-08-07 14:02:35	SF10 BW125	0%
☐	000444FB	OTAA	ON	000444FB	00137A10000444FB	AS923_WISE6610_Handler	EVA-2310	70	1	31	2024-08-07 14:37:15	SF10 BW125	15.71%
☐	161651651	OTAA		52525252	2252525252525252	AS923_WISE6610_Handler	WISE-2200-M						
☐	74FE48FFFF22F013	OTAA	OFF	FF22F013	74FE48FFFF22F013	AS923_WISE6610_Handler	WISE-2200-M	1106	601	5	2024-08-07 14:40:45	SF7 BW125	45.61%
☐	FF5E8039	OTAA		FF5E8039	74FE48FFFF5E8039	AS923_WISE6610_Handler	WISE-2410						
☐	WISE-2200-M-EdgeHub-Test1	OTAA	OFF	FF62571E	74FE48FFFF62571E	AS923_WISE6610_Handler	WISE-2200-M	2865	2743	5	2024-08-07 14:40:00	SF7 BW125	4.25%
☐	WISE-2200-M-EdgeHub-Test2	OTAA	OFF	FF6B0B24	74FE48FFFF6B0B24	AS923_WISE6610_Handler	WISE-2200-M	5708	5468	6	2024-08-07 14:40:34	SF7 BW125	4.2%
☐	WISE-2410	ABP	OFF	FF5A5B1C		AS923_WISE6610_Handler	WISE-2410	1189	1072	5	2024-08-07 14:40:43	SF7 BW125	9.92%
☐	WISE-2410-FAQ	OTAA	OFF	FF556A0A	74FE48FFFF556A0A	AS923_WISE6610_Handler	WISE-2410	119	77	5	2024-08-07 14:40:21	SF7 BW125	35.29%
☐	WISE-4610-S617	OTAA	ON	FF44E0BA	74FE48FFFF44E0BA	AS923_WISE6610_Handler	WISE-S617	281	271	7	2024-08-01 14:34:16	SF10 BW125	3.57%

3. Enter to WISE-6610v2 **Network Server > Devices > Frames Traffic** page and make sure the frame packets can be received by gateway. In this case, you can find the WISE-2410 which device address is **"FF556A0A"** had transmit the data to WISE-6610v2.

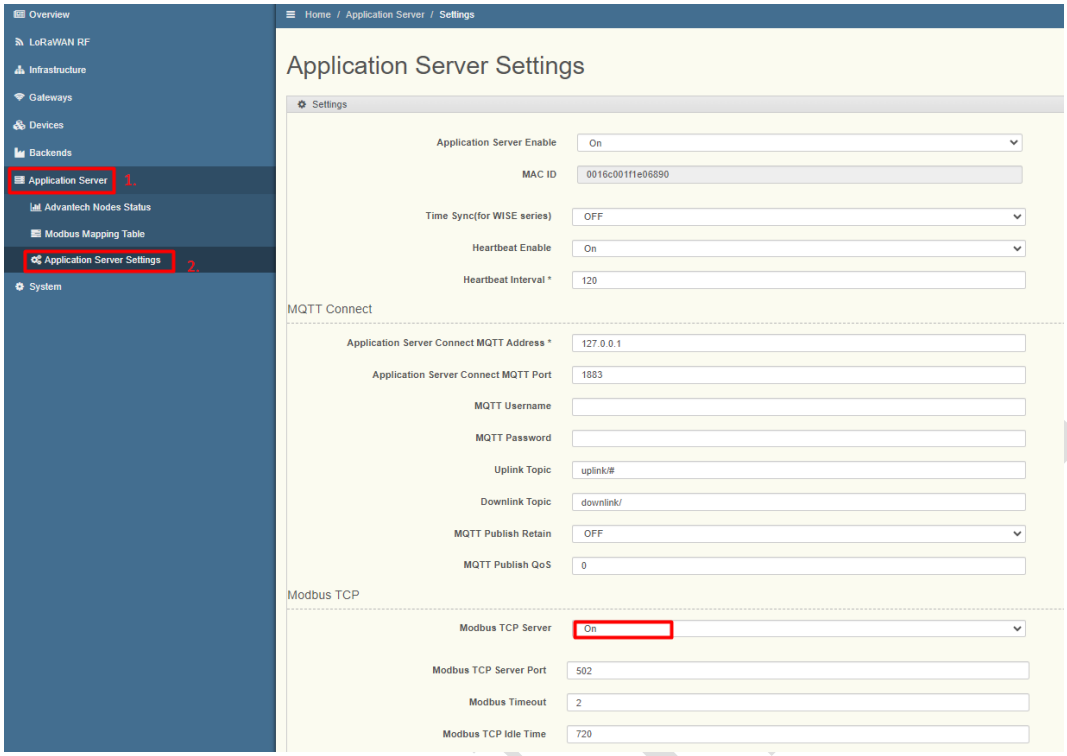


4. Enter to WISE-6610v2 **Network Server > Application Server > Advantech Nodes Status** page and make sure the gateway WISE-6610v2 can parse the data from the LoRa node.



If cannot, please check whether the "App Arguments" of this device had been set correctly or not.

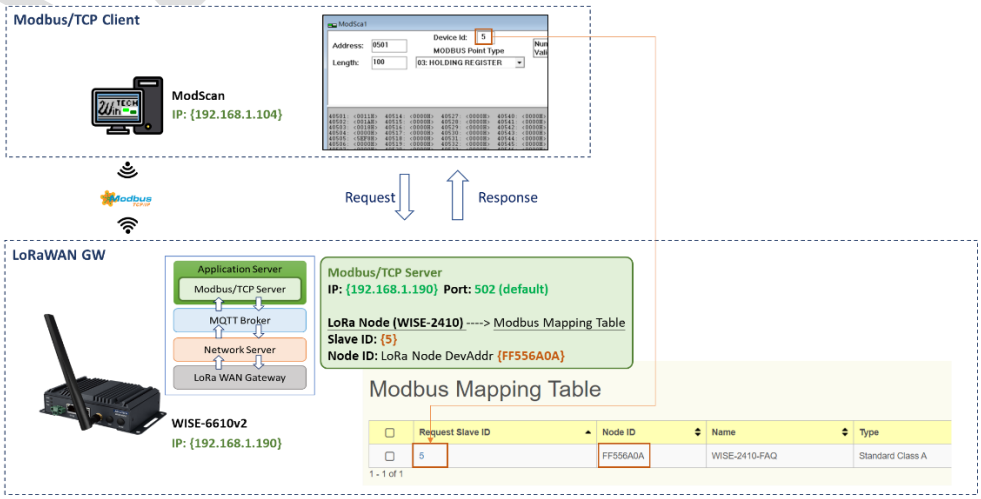
5. Enter to WISE-6610v2 **Network Server > Application Server > Application Server Settings page** and make sure the **Modbus TCP Server** is enabled.



6. Enter to WISE-6610v2 **Network Server > Application Server > Modbus Mapping Table** and make sure the Modbus ID and the Modbus Addresses are correct on Modbus client.

In this case, set the WISE-2410 which device address is **"FF556A0A"** as Slave ID 5 in WISE-6610v2 Modbus Mapping Table. And using Modbus/TCP Client (ModScan) to query the **"Vibration Velocity Value"** of WISE-2410.

- Make sure the Device ID setting of Modbus/TCP Client and the Request Slave ID setting of WISE-2410 is consistent. In this case, both of them are setting to **"5"**.



- Set the Modbus Address 40501 ~ 40503 to query the **"Vibration Velocity Value"** of WISE-2410.

Modbus Mapping Address of WISE-2410 in WISE-6610-v2 Modbus/TCP Server

WISE-2410 (for WISE-6610 LoRaWAN GW)

Sensor	Temperature			1				
Sensor	Accelerometer			Axis	3			
Address 0X	Ch	Description	Attribute	Address 4X	Ch	Band	Description	Attribute
				40211			Module Name1	Read
				40212			Reserved for Module Name	Read
				40213			Reserved for Module Name	Read
				40214			Reserved for Module Name	Read
00231	0 (X)	Accelerometer High Alarm Flag	Read	40501	0 (X)		OA Value of Vibration Velocity (0.01 mm/sec)	Read
00232	1 (Y)		Read	40502	1 (Y)			Read
00233	2 (Z)		Read	40503	2 (Z)			Read
00234	3 (Tempe)	Temperature High Alarm Flag	R/W	40504~40505	3 (Tempe)		Temperature Value	Read

Modbus/TCP Client (ModScan)