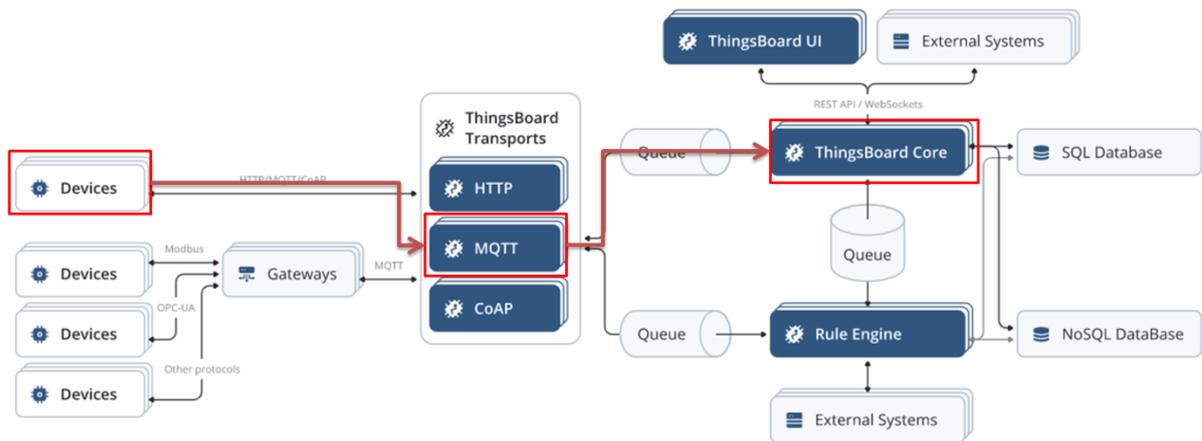


Advantech AE Technical Share Document

Date	2020/9/14	SR#	1-4278502261
Category	<input type="checkbox"/> FAQ <input checked="" type="checkbox"/> SOP	Related OS	N/A
Abstract	How to send WISE-2410 and WISE-4610 data to ThingsBoard by WISE-6610?		
Keyword	WISE, Mosquitto, ThingsBoard, LoRaWAN, Node-Red		
Related Product	WISE-2410, WISE-4610, WISE-6610		

■ **Problem Description:**

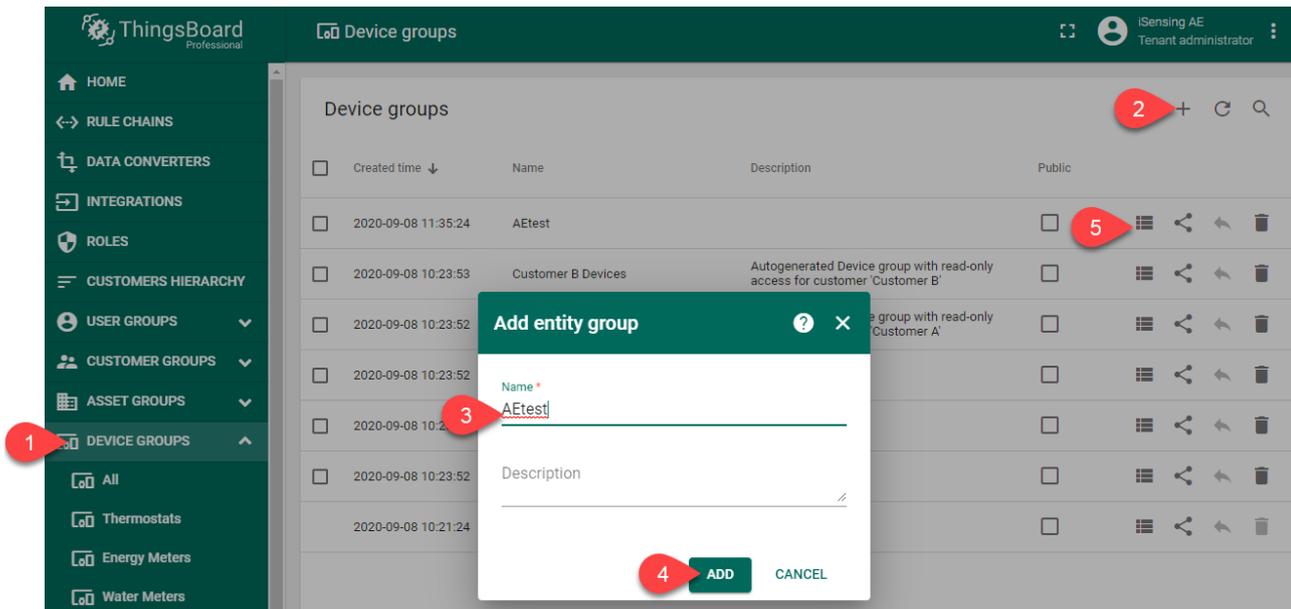
This document shows that how to send WISE-2410 and WISE-4610 data to ThingsBoard by WISE-6610 Node-Red flow.



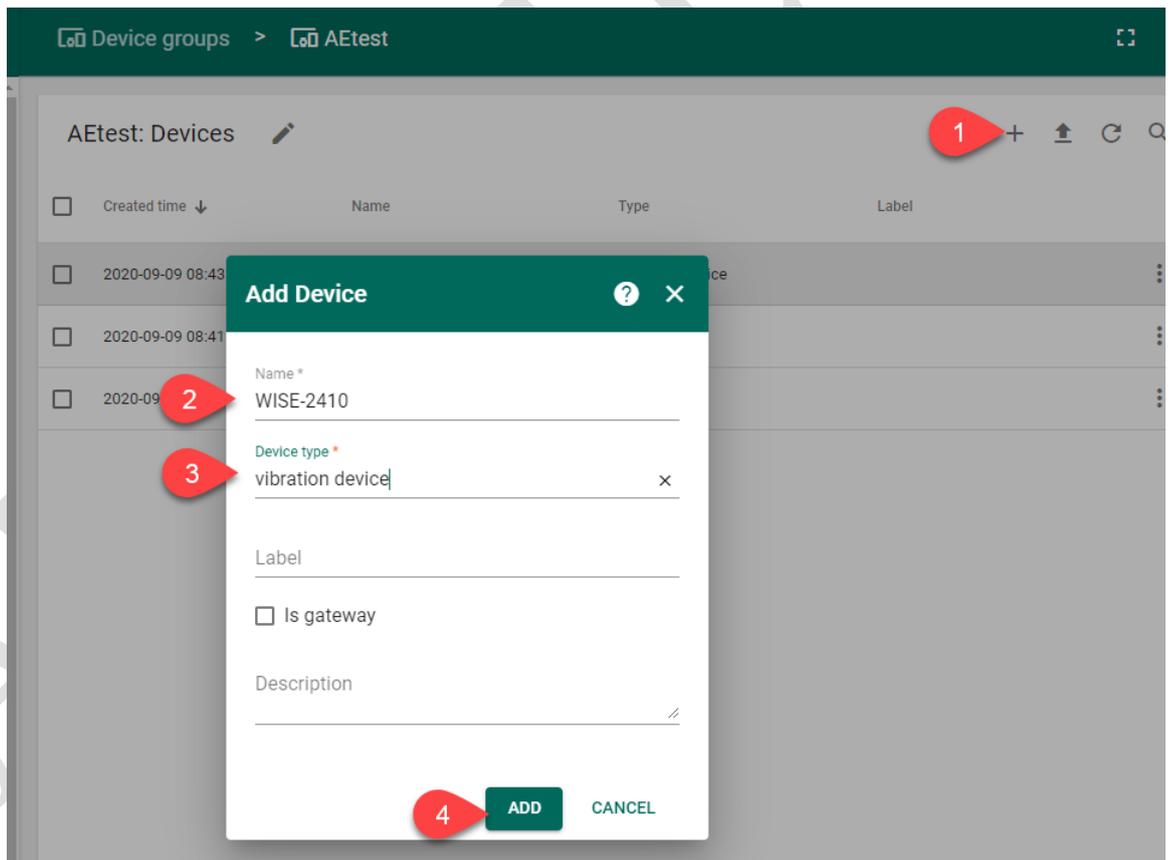
Flow chart captured from ThingsBoard.

■ **Brief Solution - Step by Step:**

- Step 1. Log-in ThingsBoard.
<https://cloud.thingsboard.io/login>
- Step 2. Create a device group.



Step 3. Goto “Device groups / Devices” section. Click “+” button and create a device with the name “WISE-2410”.



Step 4. Create MQTT node and setup requirements.

- ◆ Server: Full in according to the domain of your ThingsBoard account.
- ◆ QoS: 1
- ◆ Port: 1883
- ◆ SSL/TLS: disable

- ◆ Topic: v1/devices/me/telemetry
- ◆ Username: \$AccessToken on ThingsBoard/ Device.

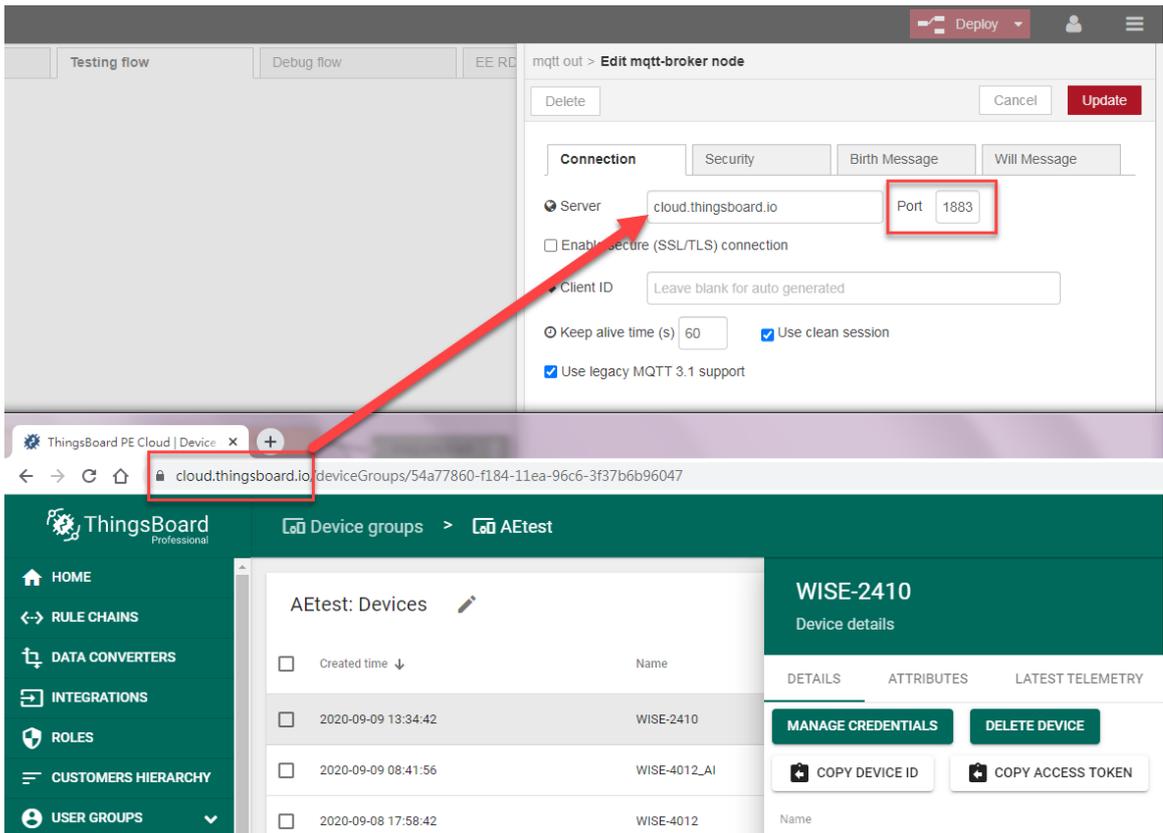
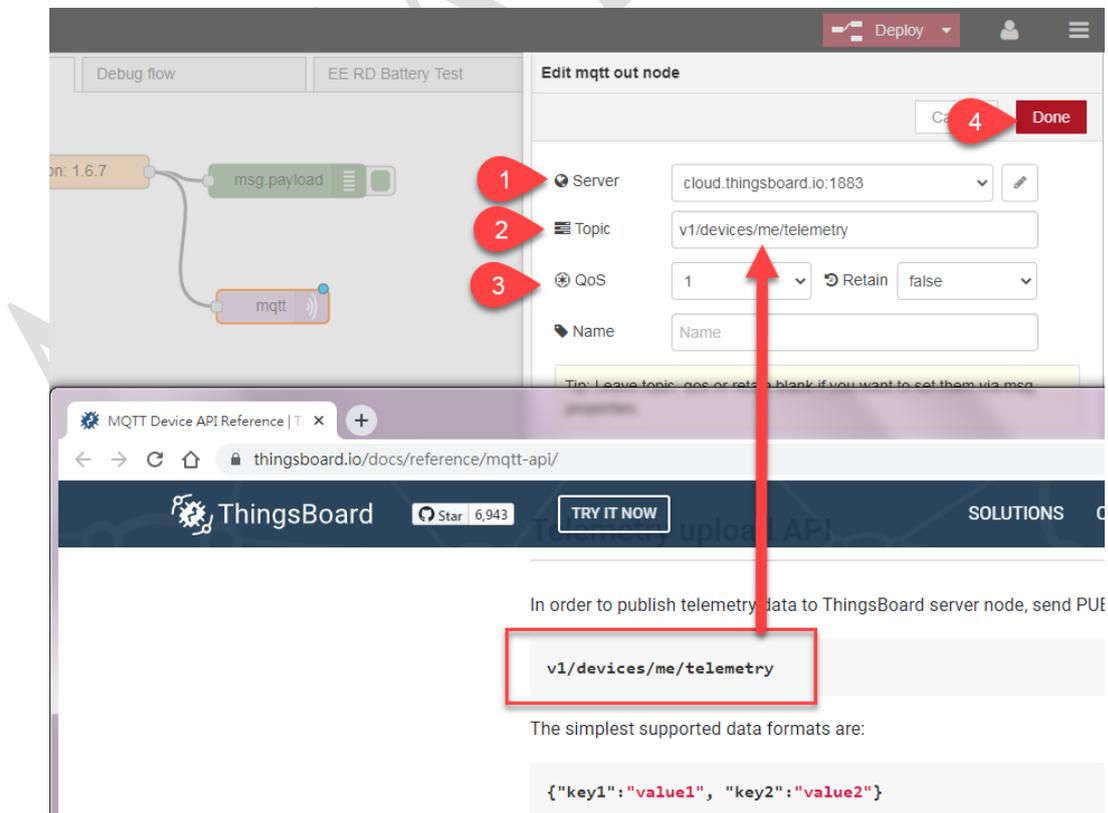
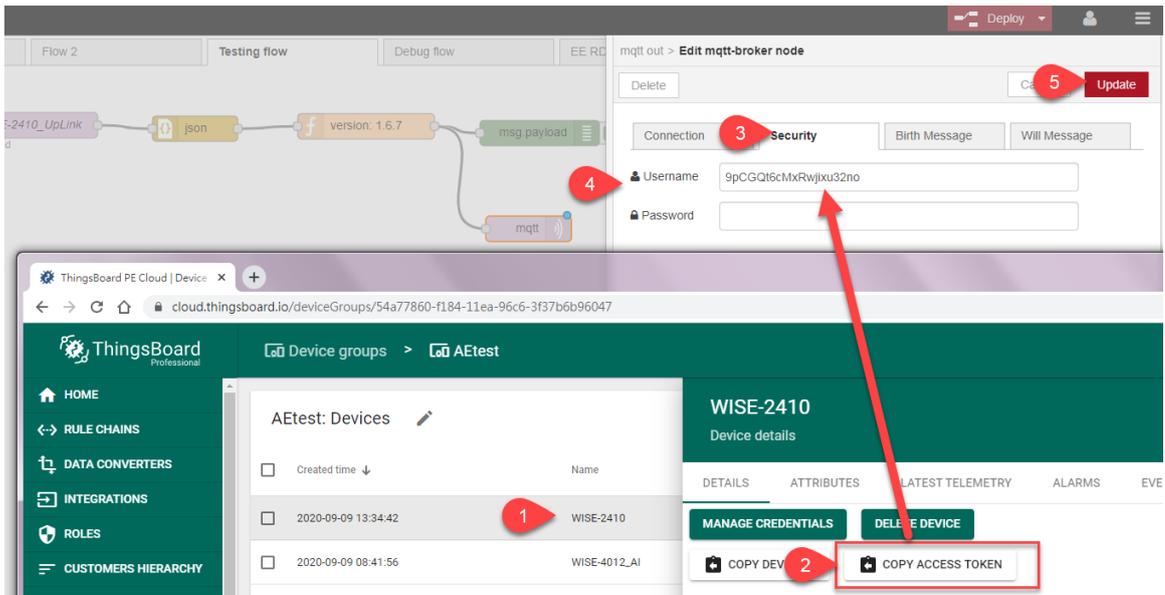


Figure of "Server" parameter.



MQTT topic.



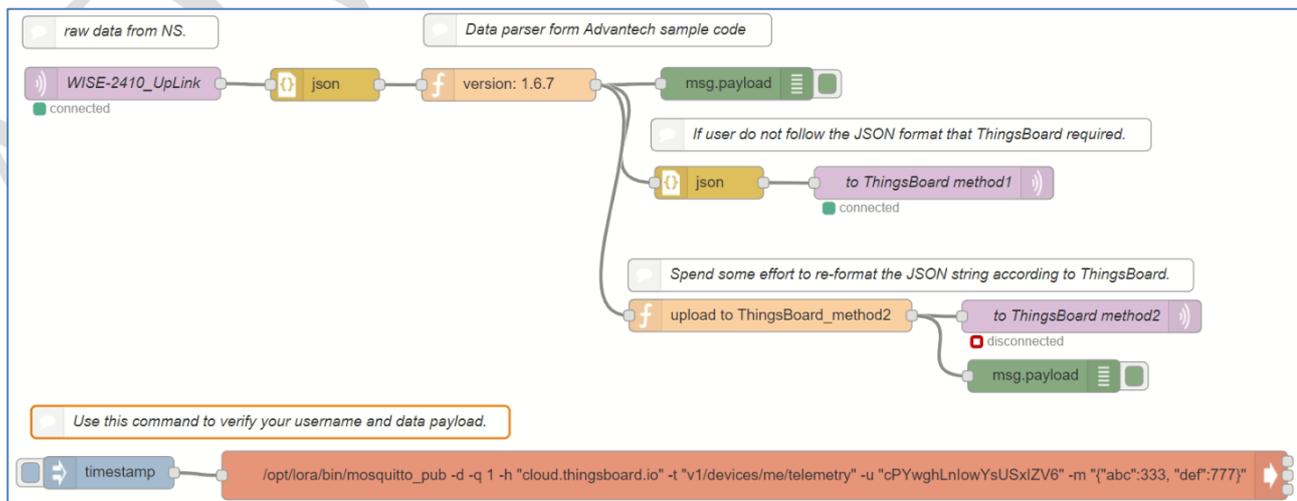
Fill-in the Username.

Step 5. Choose which data to upload to the cloud by using Node-Red function node.



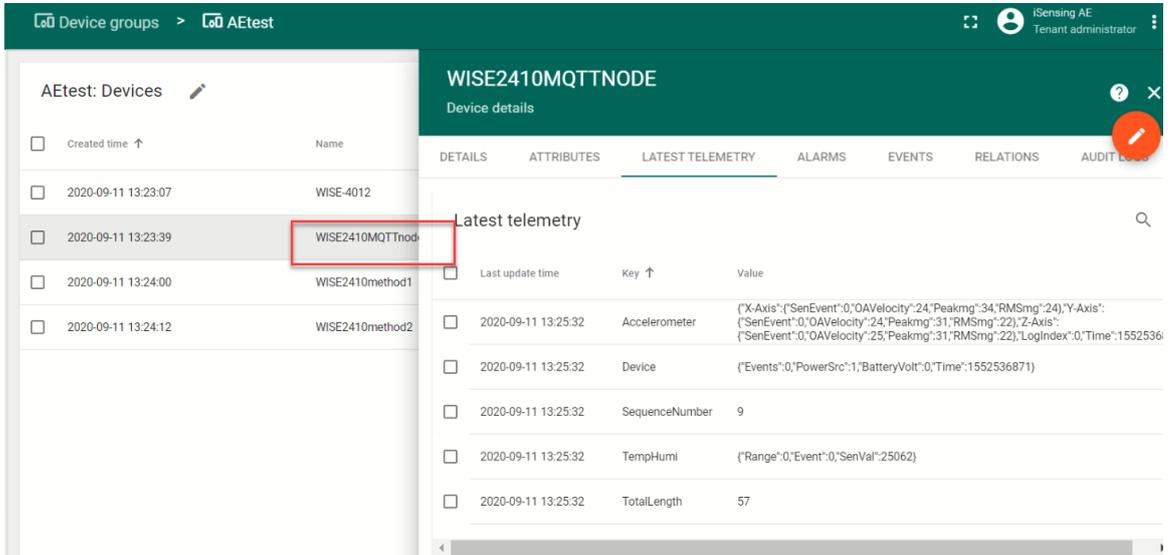
Result:

- Flow functions can be imported from the txt file attached with this document.



2. Result of 
 

Because the output of Advantech JavaScript parser sample code has 1 ~ 3 layers. ThingsBoard does not accept this data format.



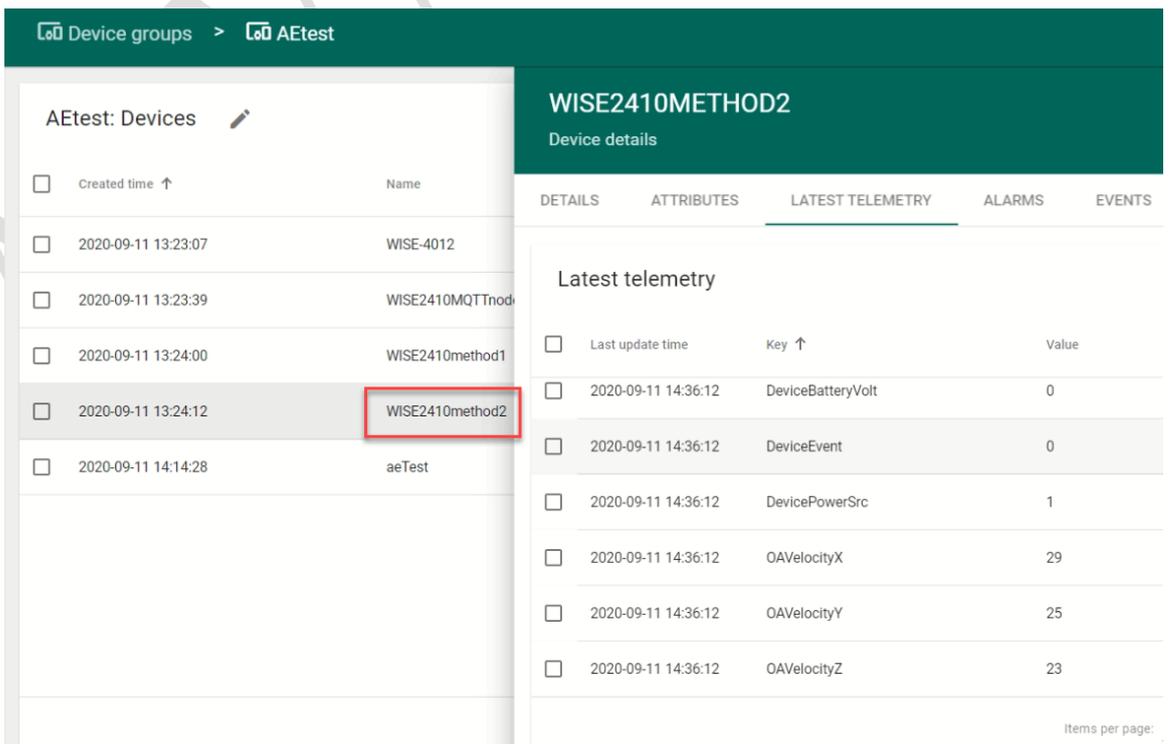
The screenshot shows the 'Device details' page for 'WISE2410MQTTNODE'. The 'Latest telemetry' table contains the following data:

Last update time	Key	Value
2020-09-11 13:25:32	Accelerometer	{\"X-Axis\":{\"SenEvent\":0,\"OAVelocity\":24,\"Peakmg\":34,\"RMSmg\":24},\"Y-Axis\":{\"SenEvent\":0,\"OAVelocity\":24,\"Peakmg\":31,\"RMSmg\":22},\"Z-Axis\":{\"SenEvent\":0,\"OAVelocity\":25,\"Peakmg\":31,\"RMSmg\":22},\"LogIndex\":0,\"Time\":1552536871}
2020-09-11 13:25:32	Device	{\"Events\":0,\"PowerSrc\":1,\"BatteryVolt\":0,\"Time\":1552536871}
2020-09-11 13:25:32	SequenceNumber	9
2020-09-11 13:25:32	TempHumi	{\"Range\":0,\"Event\":0,\"SenVal\":25062}
2020-09-11 13:25:32	TotalLength	57

3. Result of 

Because of the outcome of result #2, suggest a user spend some effort to retrieve data by the requirement and re-format the output of the function node. The sample is inside the

node 



The screenshot shows the 'Device details' page for 'WISE2410METHOD2'. The 'Latest telemetry' table contains the following data:

Last update time	Key	Value
2020-09-11 14:36:12	DeviceBatteryVolt	0
2020-09-11 14:36:12	DeviceEvent	0
2020-09-11 14:36:12	DevicePowerSrc	1
2020-09-11 14:36:12	OAVelocityX	29
2020-09-11 14:36:12	OAVelocityY	25
2020-09-11 14:36:12	OAVelocityZ	23

The content of the  upload to ThingsBoard_method2 .

Cancel Done

Name

Function

```

1 var SequenceNumber=msg.payload.SequenceNumber;
2 var Timestamp=msg.payload.Device.Time;
3 var DeviceEvent=msg.payload.Device.Events;
4 var DevicePowerSrc=msg.payload.Device.PowerSrc;
5 var DeviceBatteryVolt=msg.payload.Device.BatteryVolt;
6 var TempValue=msg.payload.TempHumi.SenVal;
7 var OAVelocityX=msg.payload.Accelerometer['X-Axis'].OAVelocity;
8 var OAVelocityY=msg.payload.Accelerometer['Y-Axis'].OAVelocity;
9 var OAVelocityZ=msg.payload.Accelerometer['Z-Axis'].OAVelocity;
10 var input="{\"SequenceNumber\": "+SequenceNumber+", \"Timestamp\": "+Timestamp+", \"DeviceEvent\"
11
12
13 msg.payload = input ;
14
15
16 return msg;

```

Outputs

4. Result of

 timestamp  /opt/loral/bin/mosquito_pub -d -q 1 -h "cloud.thingsboard.io" -f "v1/devices/me/telemetry" -u "cPYwghLnlowYsUSxIZV6" -m '{"abc":333, "def":777}'

Device groups > Aetest

Aetest: Devices

Created time ↑	Name
2020-09-11 13:23:07	WISE-4012
2020-09-11 13:23:39	WISE2410MQTTnod
2020-09-11 13:24:00	WISE2410method1
2020-09-11 13:24:12	WISE2410method2
2020-09-11 14:14:28	aeTest

AETEST
Device details

DETAILS ATTRIBUTES **LATEST TELEMETRY** ALARMS EVEN

Latest telemetry

Last update time	Key ↑	Value
2020-09-11 14:18:16	abc	333
2020-09-11 14:18:16	def	777