Configure and Use MQTT Integration on NS with HiveMQ Broker:

Link to Hive MQ Broker:

http://www.mqtt-dashboard.com/

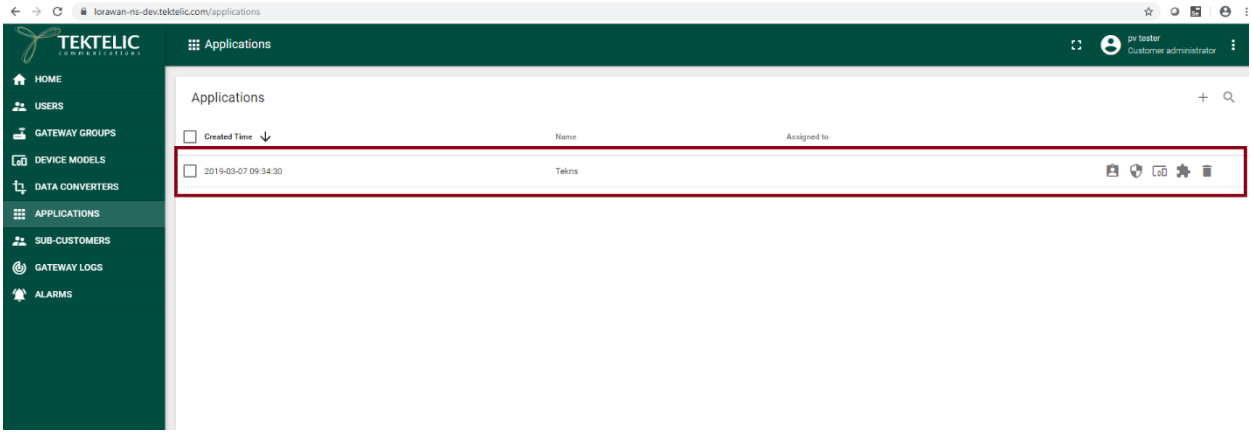
Link to HiveMQ websocket client:

http://www.hivemq.com/demos/websocket-client/?_ga=2.1603250.2052172931.1569355501-1886951608.1569355501

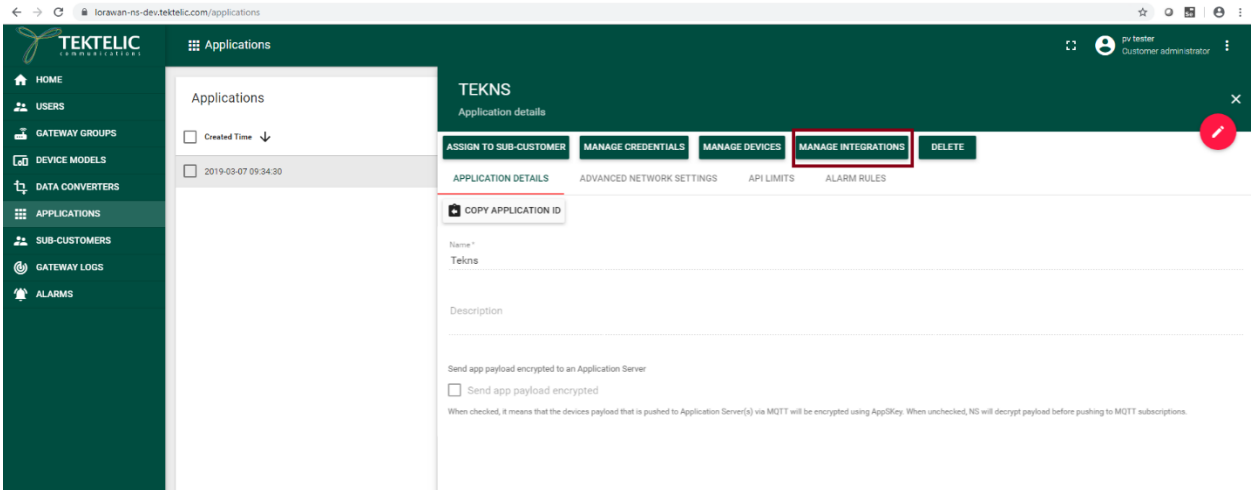
Tektelic NS server's MQTT Integration is a MQTT Client. Once the MQTT client is configured to MQTT Broker, then we can use MQTT Websocket client to publish and subscribe to the broker.

Steps to create MQTT Integration and configure to MQTT Broker:

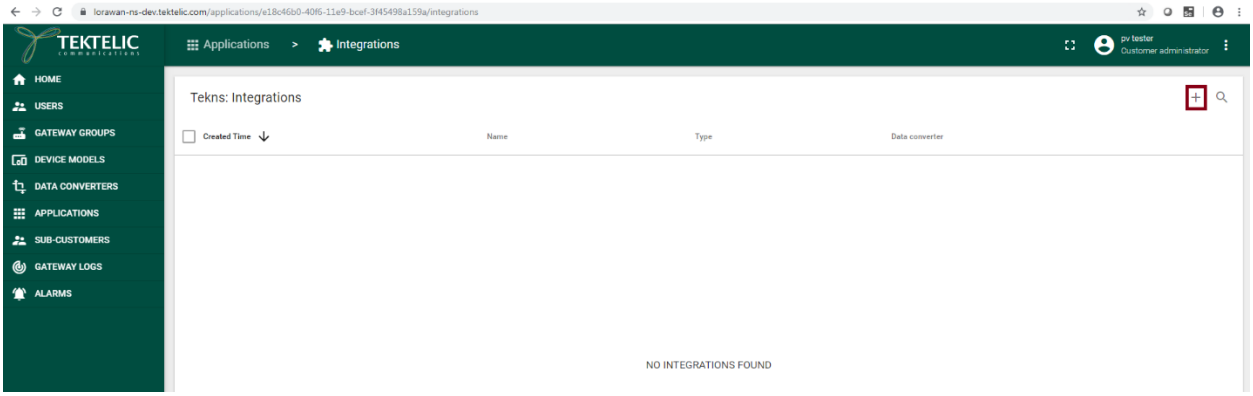
1. Login to Tektelic Network Server.
2. Go to Applications tab. Then select the Application from your list. (If you don't have one then create one.)



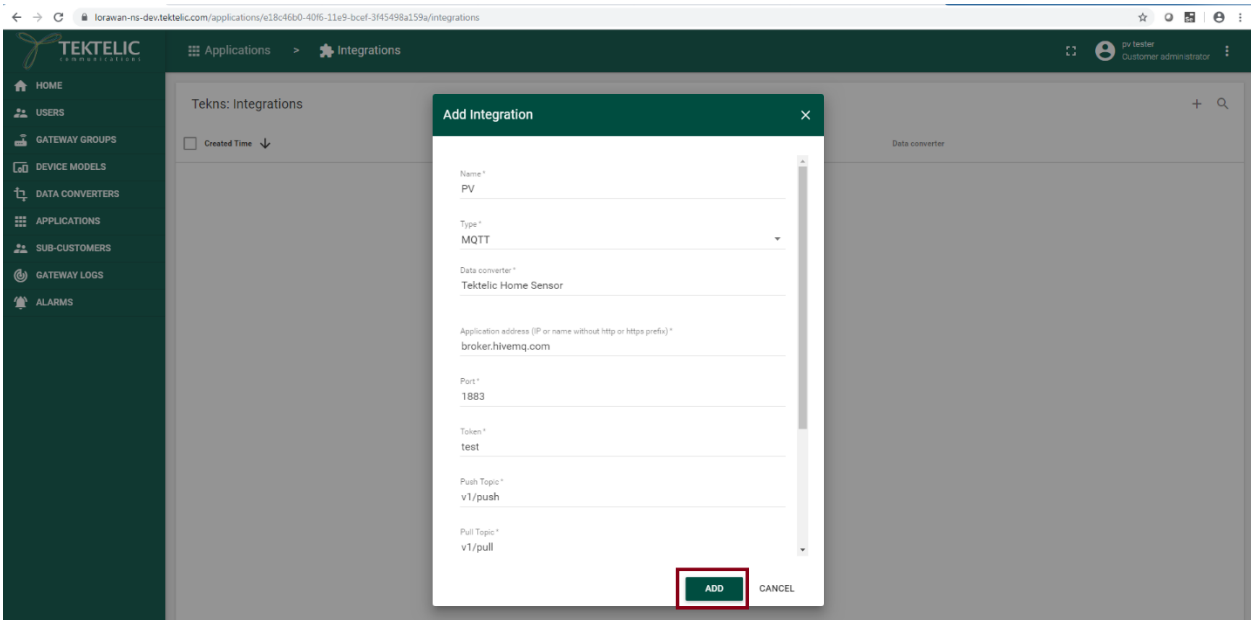
3. Then select the Manage Integrations tab.



4. Then select "+" icon and add integration.

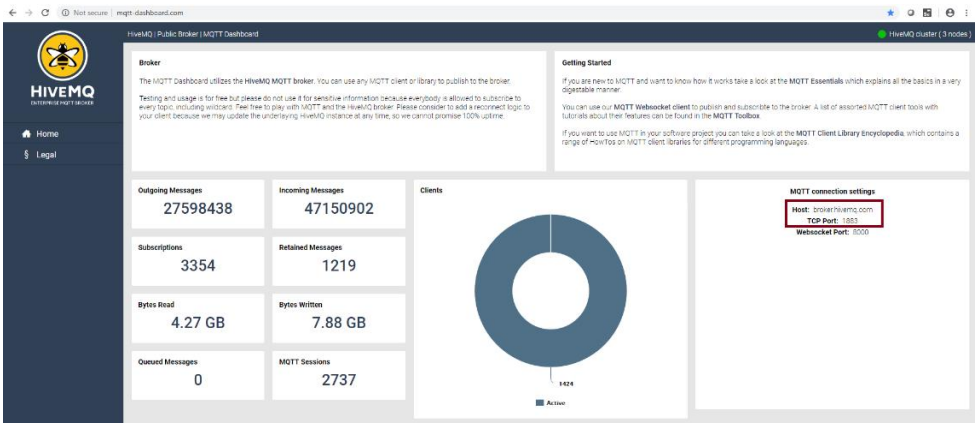


5. Then enter Name as you want, select type as MQTT, select Data Converter based on your sensor (In my case I am selecting Tektelic Home Sensor), enter Application address as **broker.hivemq.com**, enter port number as **1883**, enter token as you would like, enter push topic as you would like (In my case – v1/push) and enter pull topic as you would like (In my case – v1/pull). Then select Add Button.

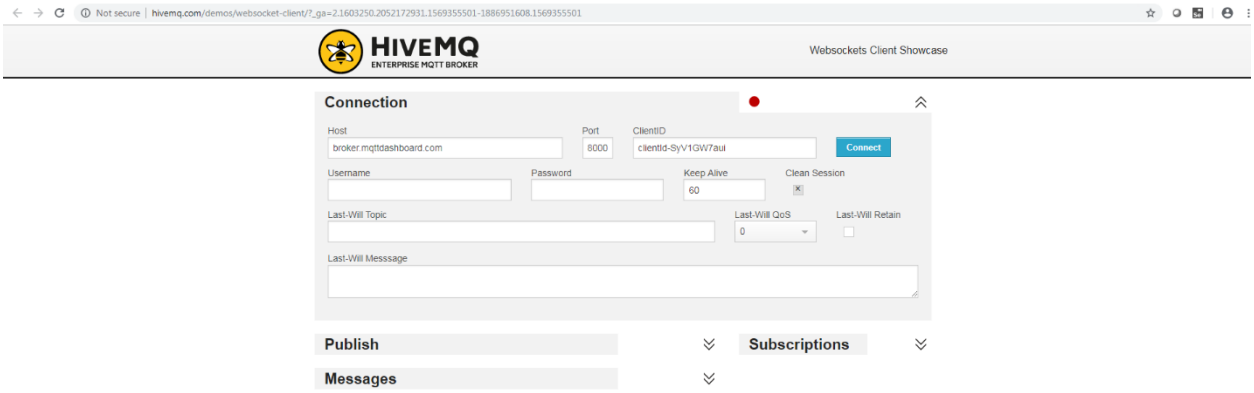


Note:

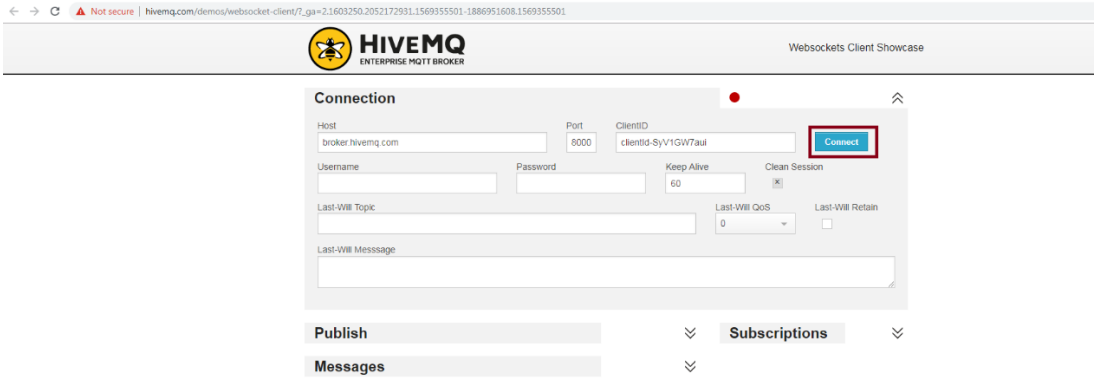
You can obtain HiveMQ Broker address and port information from here.



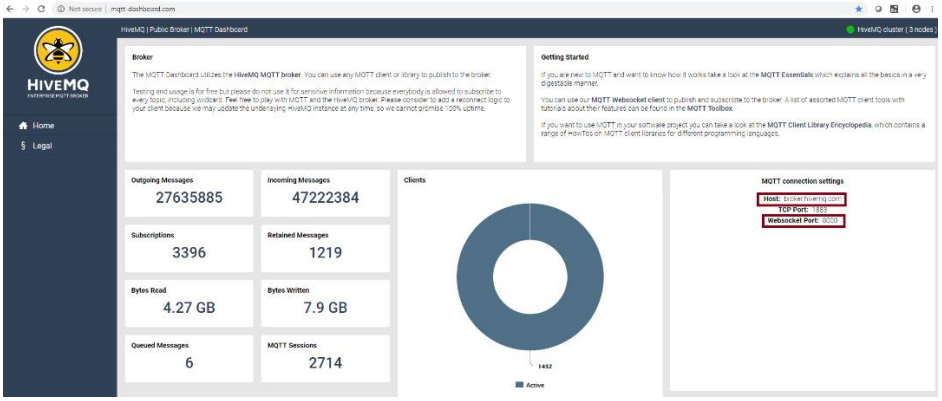
6. Now the MQTT Client and MQTT Broker would communicate each other.
7. To Subscribe and Publish to the topics. Go to HiveMQ Websocket Clinet's page. http://www.hivemq.com/demos/websocket-client/?_ga=2.1603250.2052172931.1569355501-1886951608.1569355501



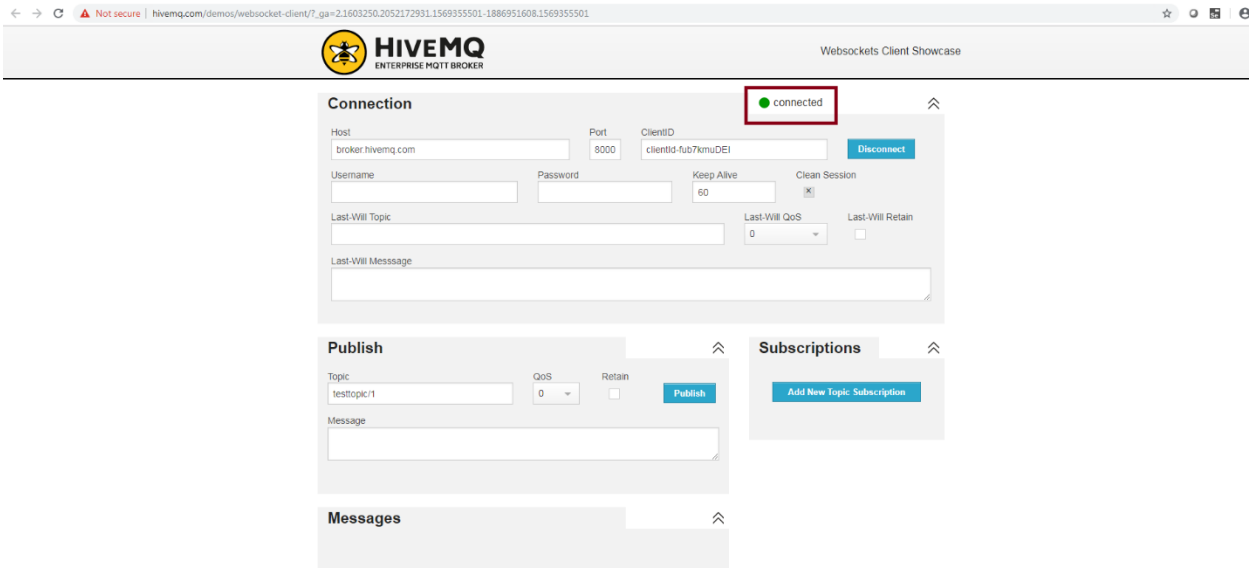
8. Then enter **broker.hivemq.com** as a host and **8000** as a port number. Then select "Connect" button.



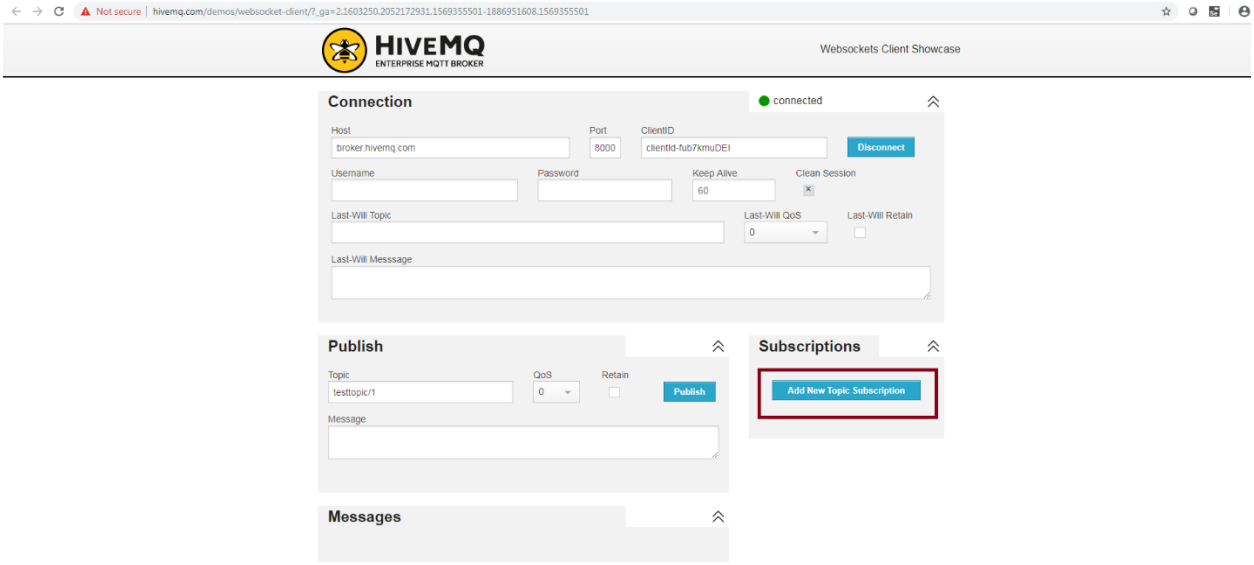
Note:
You can obtain Host and Port information from here.



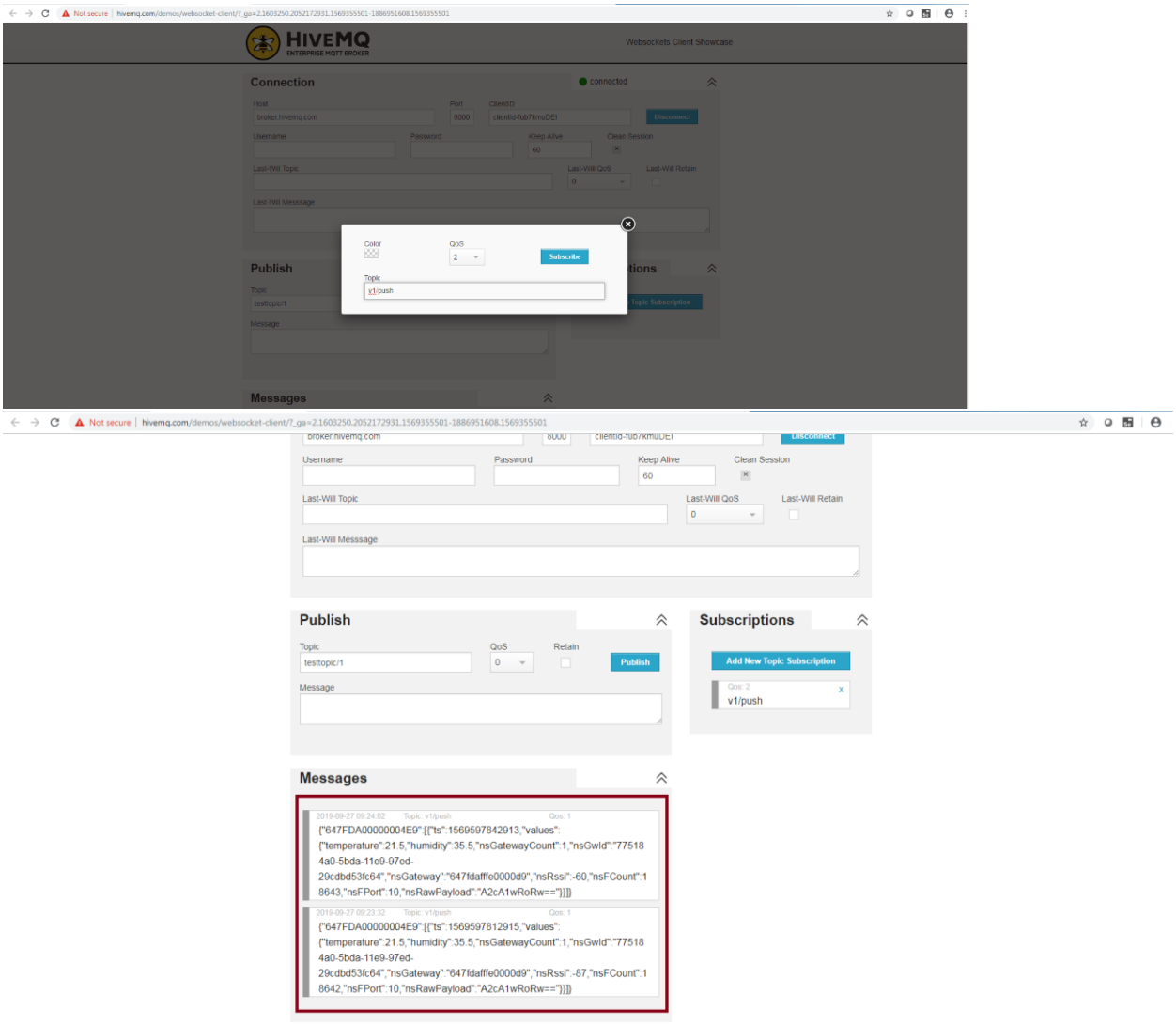
9. Then it would say it is “Connected”.



10. Then subscribe to the same topic that we entered on the MQTT Integration on the NS. To subscribe, select “Add New Topic Subscription”

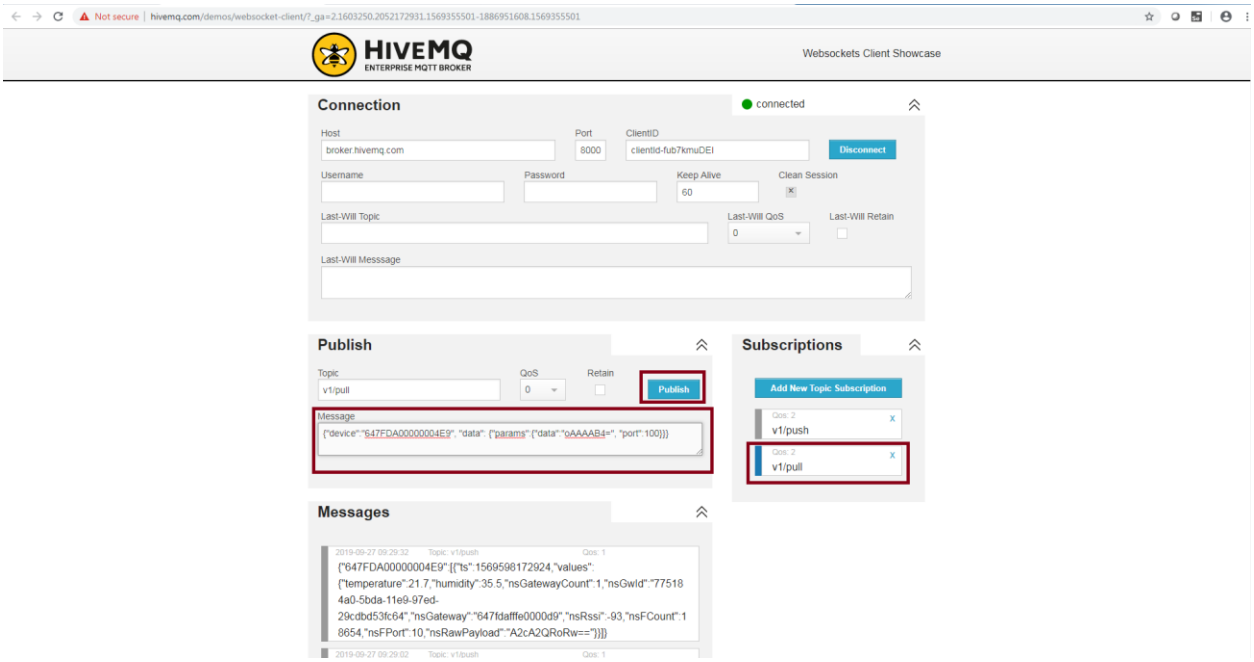


11. Then enter “v1/push” and select subscribe button. Then you would be able to see the payload from the device.



12. To publish to the topic that we entered on MQTT Integration, enter “v1/pull” as a topic under Publish. Then enter the message. The message has to follow the exact format like this. {"device":"647FDA00000004E9","data": {"params":{"data":"oAAAAB4=", "port":100}}}

    You can see this published message if you subscribe to the topic to “v1/pull”. And this message will be posted on the “Downlink Queue” under real-time packets tab on the NS.


Not secure | hivemq.com/demos/websocket-client/?_ga=2.1603250.2052172931.1569355501-1886951608.1569355501
HIVEMQ
ENTERPRISE MQTT BROKER
Websockets Client Showcase
Connection
connected
Host
broker.hivemq.com
Port
8000
ClientID
clientId-fub7kmuDEI
Disconnect
Username
Password
Keep Alive
60
Clean Session
Last-Will Topic
Last-Will QoS
0
Last-Will Retain
Last-Will Messsage
Publish
Topic
v1/pull
QoS
0
Retain
Publish
Message
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Subscriptions
Add New Topic Subscription
Qos: 2
v1/push
Qos: 2
v1/pull
Messages
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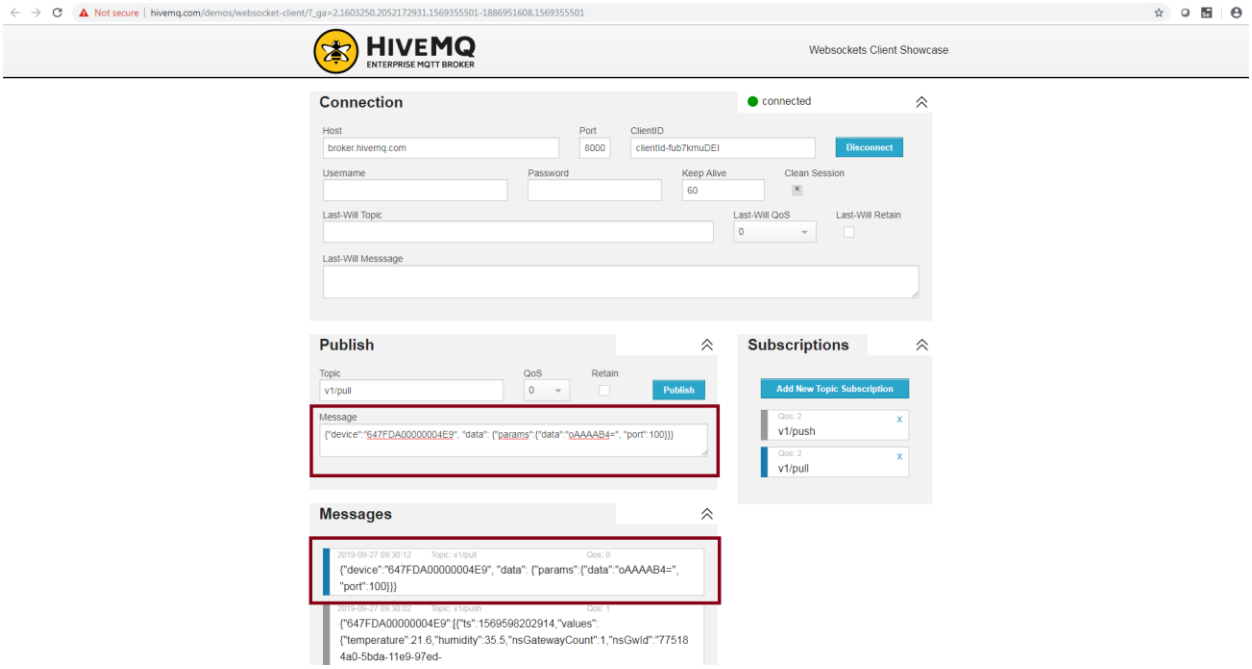
2019-09-27 09:29:02 Topic: v1/push Qos: 1


Not secure | hivemq.com/demos/websocket-client/?_ga=2.1603250.2052172931.1569355501-1886951608.1569355501
HIVEMQ
ENTERPRISE MQTT BROKER
Websockets Client Showcase
Connection
connected
Host
broker.hivemq.com
Port
8000
ClientID
clientId-fub7kmuDEI
Disconnect
Username
Password
Keep Alive
60
Clean Session
Last-Will Topic
Last-Will QoS
0
Last-Will Retain
Last-Will Messsage
Publish
Topic
v1/pull
QoS
0
Retain
Publish
Message
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Subscriptions
Add New Topic Subscription
Qos: 2
v1/push
Qos: 2
v1/pull
Messages
2019-09-27 09:30:12 Topic: v1/pull Qos: 0
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"port":100}}}
2019-09-27 09:30:02 Topic: v1/push Qos: 1
{"647FDA00000004E9":[{"ts":1569598202914,"values":
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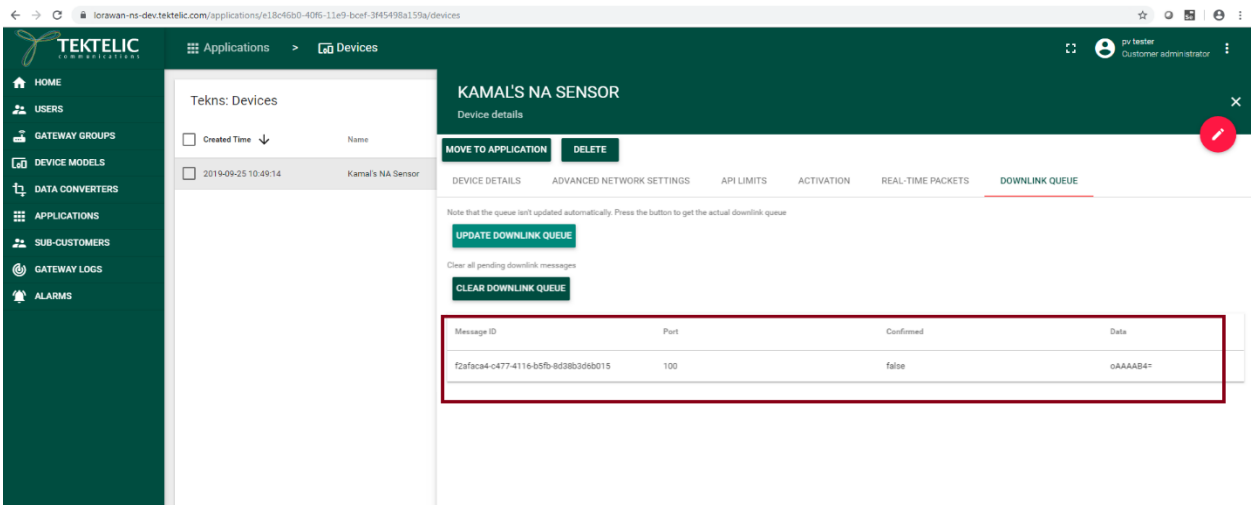
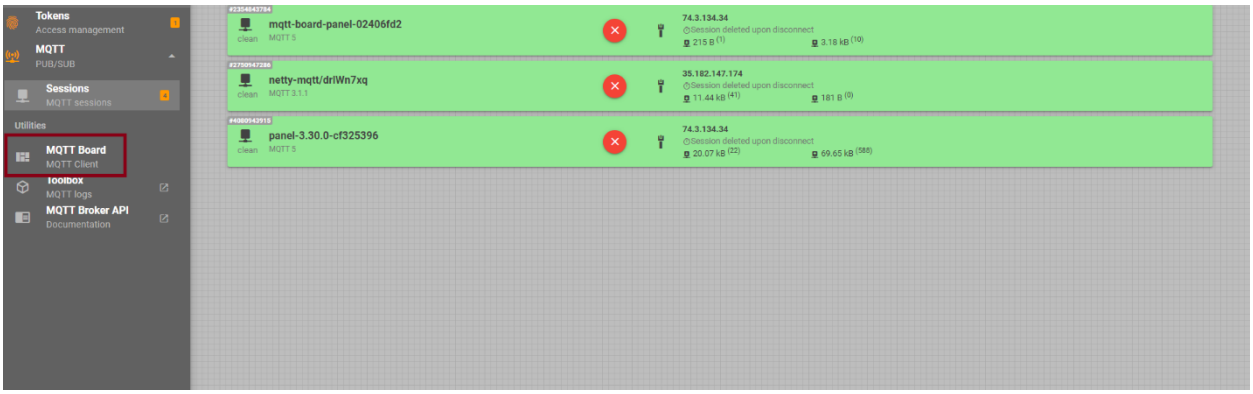
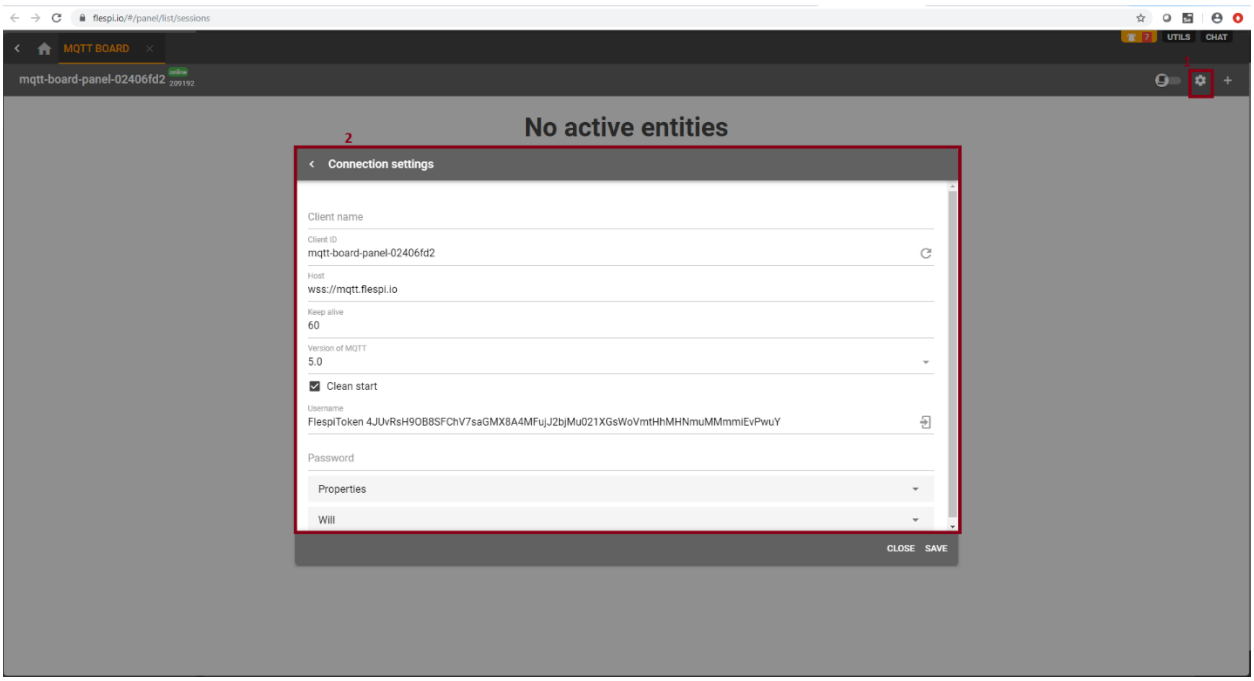


MQTTS using Flespi.io:

Create an account and login to Flespi.io. Then click MQTT Board.

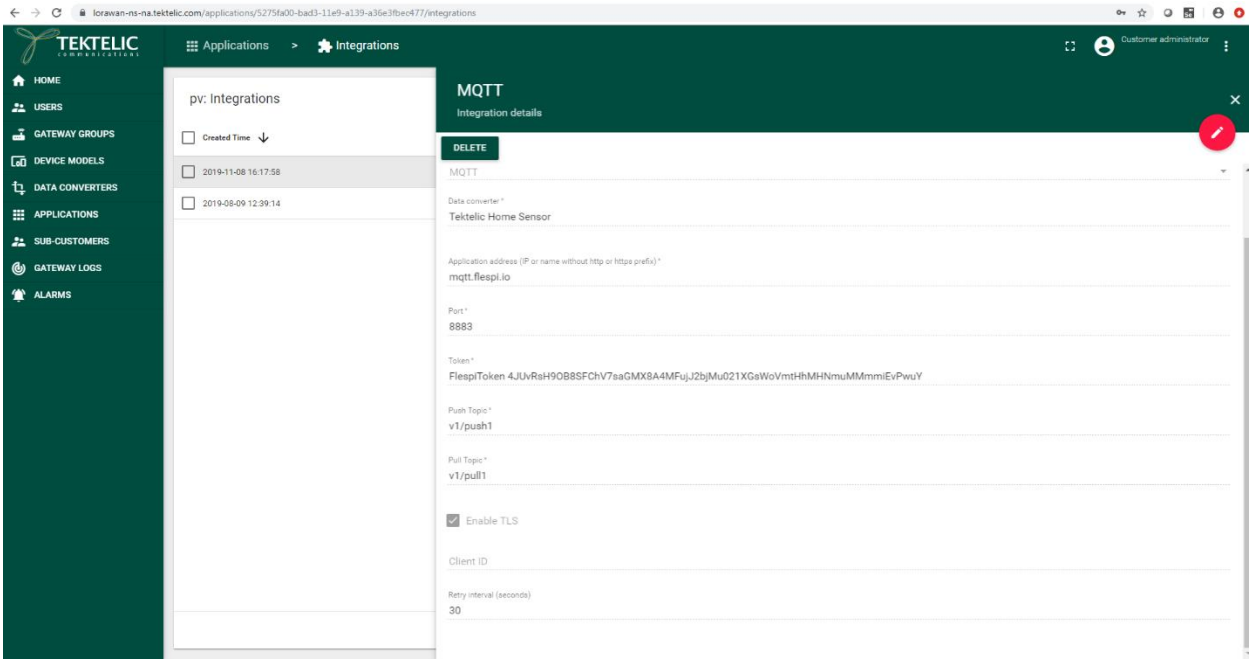


Then Click the setting icon. It will display the pre-filled window.

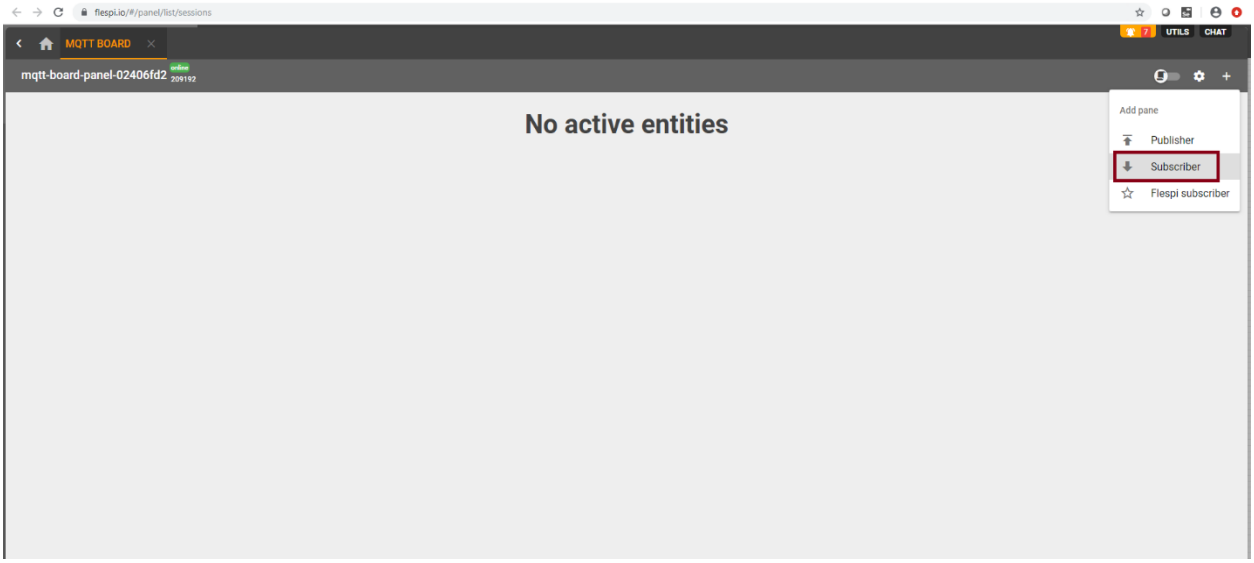


Then copy the Host (mqtt.flespi.io) and Username and enter them in the Application address and Token fields.

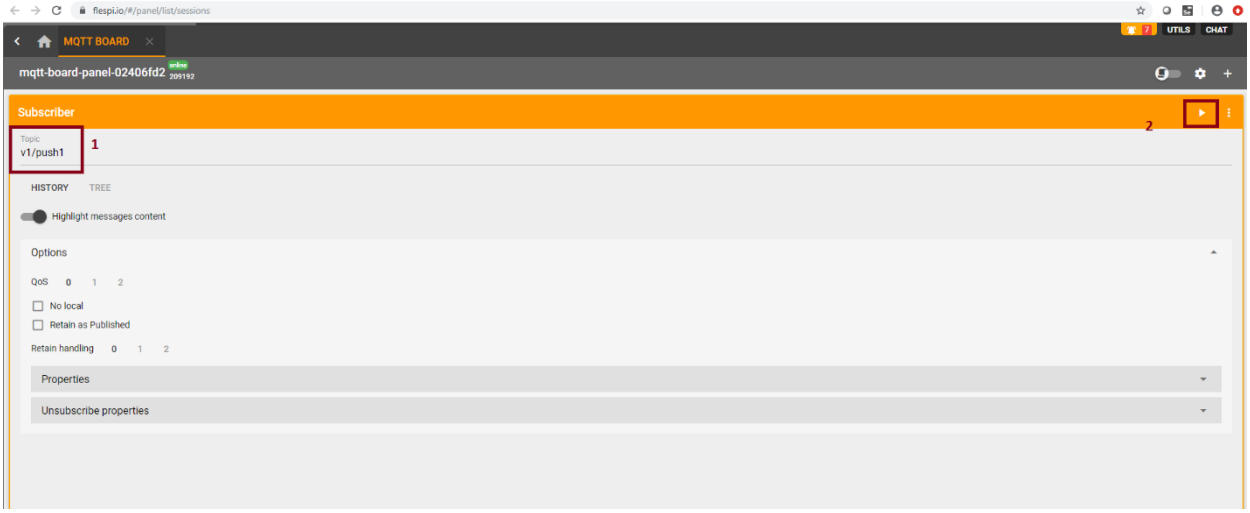
Then customize the Push and Pull topics. Then enable the “Enable TLS” check box and save it.



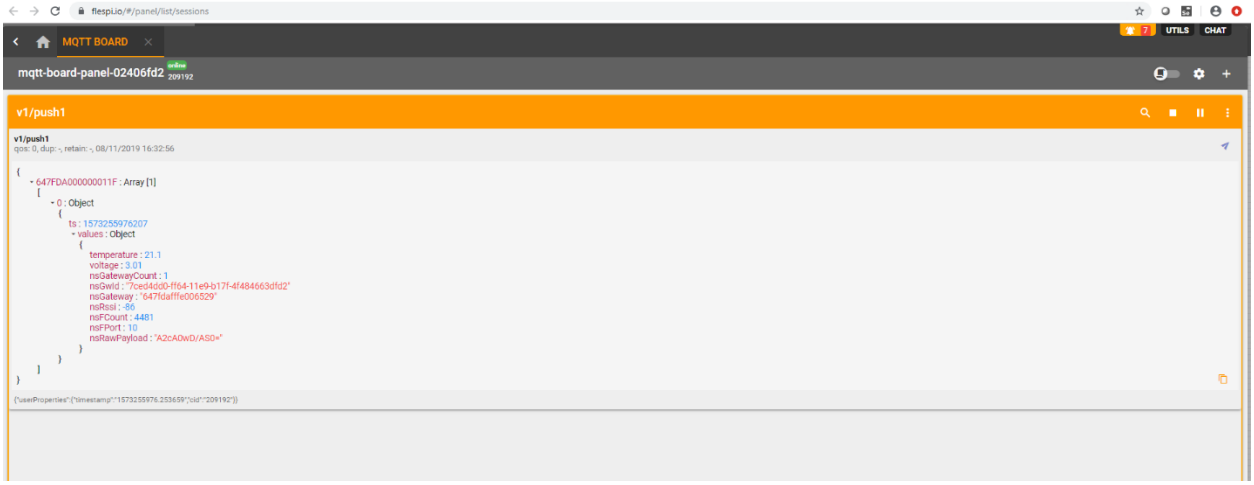
Then in Flespi.io create a subscriber.



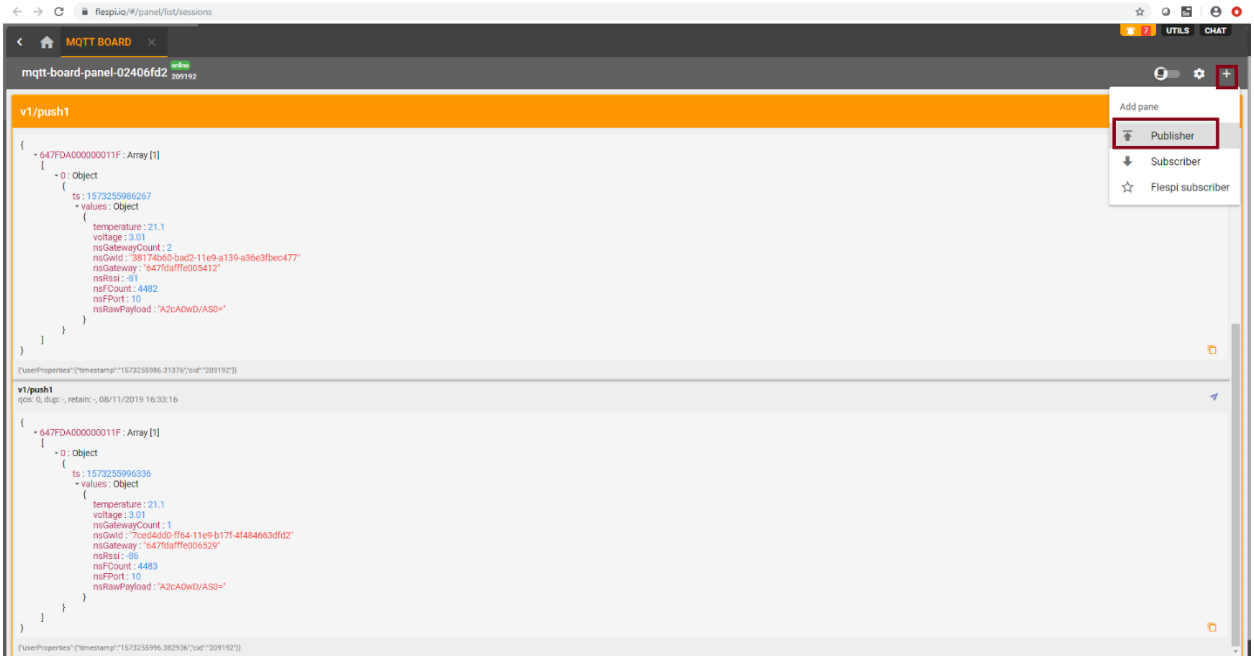
Then enter the same topic name (v1/push1) as you used in NS Integration here. And select start button.



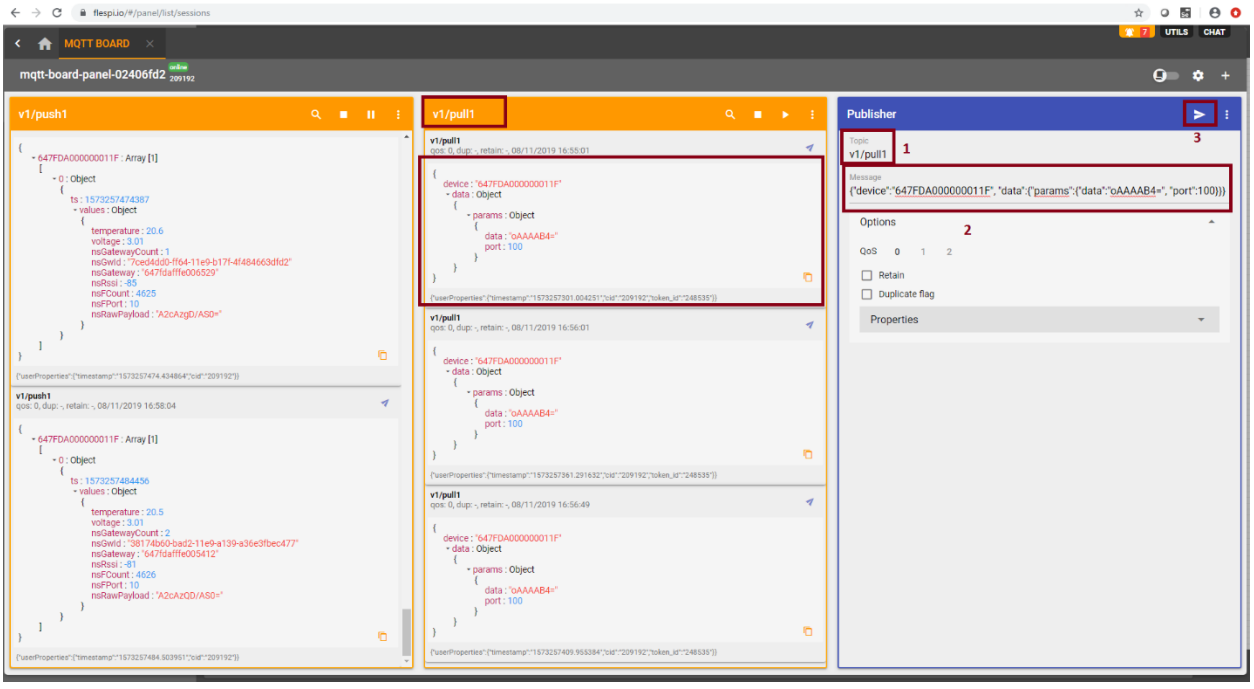
Now you will be able to receive the data.



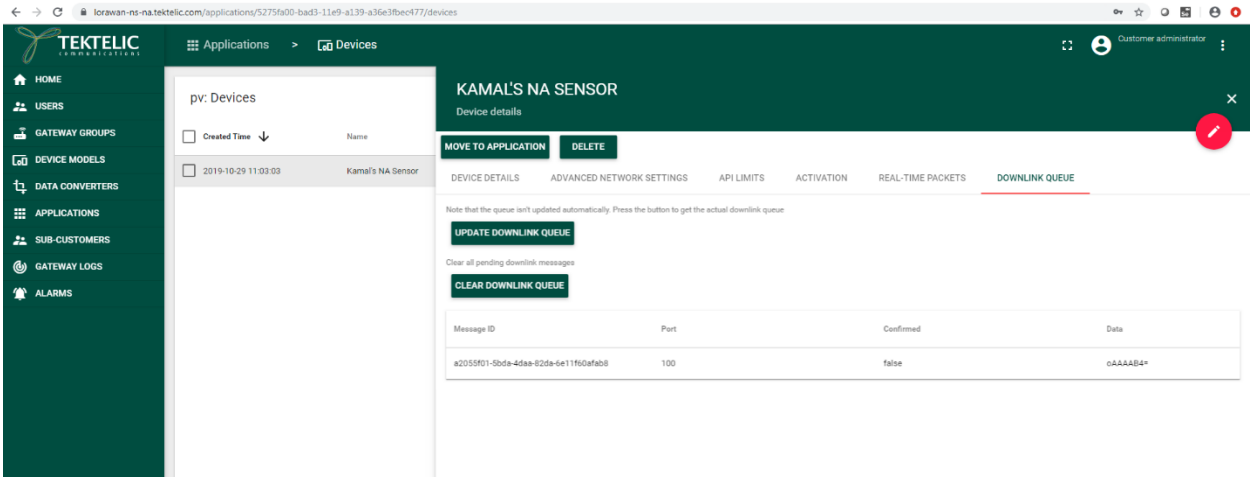
Then in Flespi.io create a Publisher.



Then enter the topic as per the topic in NS Integration to send a downlink message. Then select the start button.



Now you will be able to see the downlink message in the “Downlink Queue” in NS.


lorawan-ns-na.tektelic.com/applications/5275fa00-bad3-11e9-a139-a36e3fbec477/devices
TEKTELIC
Applications
>
Devices
Customer administrator
HOME
USERS
GATEWAY GROUPS
DEVICE MODELS
DATA CONVERTERS
APPLICATIONS
SUB-CUSTOMERS
GATEWAY LOGS
ALARMS
pv: Devices
Created Time
Name
2019-10-29 11:03:03
Kamal's NA Sensor
KAMAL'S NA SENSOR
Device details
MOVE TO APPLICATION
DELETE
DEVICE DETAILS
ADVANCED NETWORK SETTINGS
API LIMITS
ACTIVATION
REAL-TIME PACKETS
DOWNLINK QUEUE
Note that the queue isn't updated automatically. Press the button to get the actual downlink queue
UPDATE DOWNLINK QUEUE
Clear all pending downlink messages
CLEAR DOWNLINK QUEUE
Message ID
Port
Confirmed
Data
a2055f01-5bda-4daa-82da-6e11f60afab8
100
false
oAAAAB4=