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.)

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3. Then select the Manage Integrations tab.

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		Send app payload encrypted to an Application Server Send app payload encrypted Send app payload encrypted When decked, it means that the devices payload that is pushed to Application Server(s) via MQTT will be encrypted using AppSRcy When unchecked, NS will decrypt payload before pushing to MQTT subscriptions.

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

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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/push). Then select Add Button.

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Note:

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

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

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

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Note:

You can obtain Host and Port information from here.

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	The MQTT Dashboard utilizes the Hiv	eMQ MQTT broker. You can use any MQTT o	ent or library to publish to the broker.	If you are new to MQTT and want to know how it works take a look at the MQTT Essentials which explains all the basics is digestable manner.	avey
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9. Then it would say it is "Connected".

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

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

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 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.

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			Note that the queue isn't updated automatically. Pr	ess the button to get the actual downlink o	queue		-	
			UPDATE DOWNLINK QUEUE					
CATEWAY LOGS			CLEAR DOWNLINK QUEUE					
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MQTTS using Flespi.io:

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

((-))	Tokens Access management MQTT		clean	mqtt-board-pai	nel-02406fd2		×	Ÿ	74. ⊙≋ ⊈	.3.134.34 Session deleted upon disconne 215 B ⁽¹⁾	ct 里 3.18 kB ⁽¹⁰⁾		
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¢	I COIDOX MQTT logs												
	MQTT Broker API Documentation												

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

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mqtt-board-panel-02406fd2 209192			9 ⇒ ‡ +
	2 No active entities		
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	Client ID mqtt-board-panel-02406fd2	c	
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	Password		
	Properties		
	Will	v .	
		CLOSE SAVE	

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.

← → C 🖬 lorawan-ns-na.tekt	telic.com/applications/5275fa00-bad3-11e9-a139-a36e3fbec477	integrations 🗠 🖈 🔾 🛃 🕂 🖸
	🇱 Applications 🔹 🏫 Integrations	Customer administrator
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GATEWAY LOGS		Application address (P or name without http or https prefix) * mqtt.flespl.io
1 ALARMS		Port*
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		Retry interval (seconda) 30

Then in Flespi.io create a subscriber.

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

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Now you will be able to receive the data.

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Then in Flespi.io create a Publisher.

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nrFCourt: -4433 nrFPort: 10 nrsRamPayload : V2cA0wD/ASD=*			
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Then enter the topic as per the topic in NS Integration to send a downlink message. Then select the start button.

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

