## Step 2 Set up the MQTT connector for devices, points and references

Let's configure Niagara as a MQTT client and start sending your first messages over MQTT.

## Set up the connector

1. Open the palette btibMqttConnector and drag & drop the MqttConnector component inside Services > BtibService > External Connectors > Realtime Connector

<ul> <li>External Connectors</li> <li>Time Series Connector</li> <li>Realtime Connector</li> <li>M MqttConnector</li> </ul>	NqttConnect (M) MqttConnector FaultCause
<ul> <li>The PlatformServices</li> <li>Drivers</li> <li>Apps</li> </ul>	
• Palette	
btibMqttConnector	
MqttConnector	
• O Extensions	

2. Double click on the connector and fill all the information of the server

Property Sheet	
MqttConnector (Mqtt Connector)	
Log Ext	System Log Ext
🗎 Status	{ok}
📔 Fault Cause	
Enabled	🔵 true 🔽
📔 Last Attempt	20-Oct-2020 03:49 PM CEST
📔 Last Success	20-Oct-2020 03:49 PM CEST
📔 Last Failure	21-Sep-2020 12:31 PM CEST
📔 Use Data Retention	🛑 false 🔽
Data Retention Duration	+00072h 00m 00s
Data Send Retry Duration	+00000h 01m 00s
📔 Messages Thread Pool Size	5
Advanced Config	Advanced Config
<ul> <li>         Øf Advanced Config     </li> <li>         Mqtt Host     </li> </ul>	localhost
Gr Advanced Config     Mqtt Host     Port	localhost 1883
G     G     Advanced Config     Mqtt Host     Port     Ssl	Advanced Config localhost 1883 false
	Advanced Config localhost 1883 false v /devices/\${deviceId}/events
	Advanced Config localhost 1883 false v /devices/\${deviceId}/events /devices/\${deviceId}/state
<ul> <li>Image: Advanced Config</li> <li>Image: Mqtt Host</li> <li>Image: Port</li> <li>Image: Ssl</li> <li>Image: Devices Message Topic Format</li> <li>Image: Devices State Topic Format</li> <li>Image: Devices Service Topic Format</li> </ul>	Advanced Config localhost 1883 false /devices/\${deviceId}/events /devices/\${deviceId}/state /devices/\${deviceId}/service
<ul> <li>Image: Advanced Config</li> <li>Image: Mqtt Host</li> <li>Image: Port</li> <li>Image: Ssl</li> <li>Image: Devices Message Topic Format</li> <li>Image: Devices State Topic Format</li> <li>Image: Devices Subscription Topic Format</li> <li>Image: Devices Subscription Topic Format</li> </ul>	Advanced Config localhost 1883 false /devices/\${deviceId}/events /devices/\${deviceId}/state /devices/\${deviceId}/service /devices/\${deviceId}/command/#
<ul> <li>Image: Advanced Config</li> <li>Image: Mqtt Host</li> <li>Image: Port</li> <li>Image: Ssl</li> <li>Image: Devices Message Topic Format</li> <li>Image: Devices State Topic Format</li> <li>Image: Devices Subscription Topic Format</li> <li>Image: Devices Subscription Topic Format</li> <li>Image: Client Id Format</li> </ul>	Advanced Config localhost 1883 false /devices/\${deviceId}/events /devices/\${deviceId}/state /devices/\${deviceId}/service /devices/\${deviceId}/service /devices/\${deviceId}/service
<ul> <li>Advanced Config</li> <li>Mqtt Host</li> <li>Port</li> <li>Ssl</li> <li>Devices Message Topic Format</li> <li>Devices State Topic Format</li> <li>Devices Service Topic Format</li> <li>Devices Subscription Topic Format</li> <li>Client Id Format</li> <li>Service Topic Update Delay</li> </ul>	Advanced Config localhost 1883 false /devices/\${deviceId}/events /devices/\${deviceId}/state /devices/\${deviceId}/service /devices/\${deviceId}/command/# \${deviceId} 1000
<ul> <li>Advanced Config</li> <li>Mqtt Host</li> <li>Port</li> <li>Ssl</li> <li>Devices Message Topic Format</li> <li>Devices State Topic Format</li> <li>Devices Subscription Topic Format</li> <li>Client Id Format</li> <li>Service Topic Update Delay</li> <li>Authentication Schemes</li> </ul>	Advanced Config localhost 1883 fals /devices/\${deviceId}/events /devices/\${deviceId}/state /devices/\${deviceId}/service /devices/\${deviceId}/command/# \${deviceId} 1000 Authentication Schemes Container
<ul> <li>Advanced Config</li> <li>Mqtt Host</li> <li>Port</li> <li>Ssl</li> <li>Devices Message Topic Format</li> <li>Devices State Topic Format</li> <li>Devices Service Topic Format</li> <li>Devices Subscription Topic Format</li> <li>Client Id Format</li> <li>Service Topic Update Delay</li> <li>Authentication Schemes</li> <li>FlexSASA</li> </ul>	Advanced Config localhost 1883 false /devices/\${deviceId}/events /devices/\${deviceId}/state /devices/\${deviceId}/service /devices/\${deviceId}/command/# \${deviceId} 1000 Authentication Schemes Container Flex Pane Agent

Set up a Device

1. From the btibMqttConnector palette, drag and drop the MqttDeviceExt to a device or anything that represents a group of points (it might be a Node, a folder etc.)

Tuning Policies
🔻 🚔 AHU_01
Alarm Source Info
Points
Virtual
Alarms
Schedules
Trend Logs
Config
InfoSource
(M) MqttDeviceExt
AHU 02
AHU 03
ConNetwork
. 🛆
Palette
🖿 🕱 🖻 btibMqttConnector
Connector
Connectors
Extensions
MqttDeviceExt
MqttPointExt
Mil MattReferenceExt

a. If you have only one connector the extension will pick it up automatically.

Property Sheet			
MqttDeviceExt (Mo	qtt Device Ext)		
📄 Status	{ok}		
Fault Cause 👔			
🗎 Enabled	🔵 true 🗸		
Connector	MqttConnector	•	

b. if you have multiple connectors, select the one in the list and hit save

Property Sheet	
MqttDeviceExt (Mo	tt Device Ext)
🗎 Status	{ok}
Fault Cause 👔	
🗎 Enabled	🔵 true 🔽
Connector	M MqttConnector
	M MattConnector
	MqttConnector1

1. From the btibMqttConnector palette, drag and drop the MqttPointExt to a point.

In In Ing Policies
▼ ▲ AHU_01
Alarm Source Info
<ul> <li>Points</li> </ul>
🔻 🔃 Setpoint
Proxy Ext
InfoSource
NumericInterval
MqttPointExt
Return fan command
N Discharge Air Pressure
B Global status
B Running State
Virtual
· • ·
Palette
🗙 🔊 🗋 btibMqttConnector
O constant
Connectors
C Extensions
MqttDeviceExt
M MqttPointExt
MqttReferenceExt

2. Edit the device query to point to your device which contains the Device Extension. By default, the extension will look for the parent device but you can change it to use any other component that contains a MqttDevice extension.

Property Sheet			
M MqttPointExt (Mqtt Point Ext)			
Advanced Config	Advanced Config		
📔 Status	{ok}		
📔 Fault Cause			
📔 Enabled	🔵 true 🔽		
Device Query	<pre>slot: neql:traverse n:parentDevice-&gt;</pre>	-	?
📔 Trigger On Value Change Only	🔵 true 🔽		
🏹 Can Write	🔵 true 🔍		

## Setup a reference

1. From the btibMqttConnector palette, drag and drop the MqttReferenceExt to a point.

Propagation
🔍 🎉 Reference
💌 l ReferenceFolder
Ticket1
MqttReferenceExt
PlatformServices
<ul> <li>Orivers</li> </ul>
NiagaraNetwork
🖿 🗶 🖄 ibibMqttConnector
Connectors
<ul> <li>Extensions</li> </ul>
MqttDeviceExt
MqttPointExt
MqttReferenceExt
Statistics

2. Edit the device query to point to your device which contains the Device Extension.

Property Sheet	
MqttReferenceExt	(Mqtt Reference Ext)
📔 Status	{ok}
Fault Cause	
Enabled	🔵 true 🔽
Device Query	<pre>station: slot:/Drivers/BacnetNetwork/AHU_01</pre>

## Next step

Step 3 Send messages to MQTT broker from Niagara