Step 2 Set up AWS connector for devices points and references

In this step you will setup the AwsIoTconnector to connect Niagara to AWS.

Set up the connector

1. Open the btibAWS palette.



2. Drag and drop the connector on the btibService ExternalConnectors RealtimeConnectors folder.

| • Nav | 3 |
|--|---|
| Ny Network | |
| Time Range Definition Px Properties Log Selection Resource Resource Api Controller Model Propagation Strategy External Connectors Time Series Connector | |
| 👻 🧏 Realtime Connector | |
| AwsloTConnector Model Connector File Connector Restform Services | - |
| O Drivers | - |
| Apps | - |
| Palette | |
| DtibAWS | |
| AwsloTConnector | |
| Extensions AwsloTDeviceExt AwsloTPointExt Alarm AwsloTAlarmRecipient | |

3. Copy the certificate, the private and the CA certificate to your station files.

| | * | Files activedb aws | |
|-----|---------|--|----|
| | | iot-certs | |
| | | b91b130242-certificate.pem.crt b91b130242-private.pem.key CA.pem.key | I. |
| | ► | 🖽 Hierarchy | |
| | • | History | ~ |
| | | | |
| | | | |
| • P | alette | 2 | |
| • P | alette | btibAWS | - |
| • P | Palette | e DibAWS | 2 |
| • P | Palette | e btibAWS IoTConnector nsions | - |
| • P | Palette | e btibAWS IoTConnector nsions AwsIoTDeviceExt | |
| • P | Palette | e btibAWS IoTConnector nsions AwsIoTDeviceExt AwsIoTPointExt | |
| • P | Palette | e btibAWS IoTConnector nsions AwsIoTDeviceExt AwsIoTPointExt m | |

4. Configure your connector.

a. On authentication choose your keys.

| Property Sheet | |
|--------------------------------------|--|
| AwsIoTConnector (Aws Io T Connector) | |
| Iog Ext | System Log Ext |
| 📔 Status | {ok} |
| 📔 Fault Cause | |
| 🗎 Enabled | 🔵 true 🔍 |
| 🗎 Last Attempt | 2023-05-15 15:58 |
| 📔 Last Success | 2023-05-15 15:58 |
| 📔 Last Failure | 2023-05-15 15:09 |
| Monitor | Connector Ping Monitor |
| 🗎 Auto Provision | 🛑 false 🔍 |
| 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 |
| 隌 Commands Topic | Command Slot Topic 🔹 |
|) Devices Message Topic Format | /devices/\${deviceId}/events |
|) Devices State Topic Format | /devices/\${deviceId}/state |
|) Devices Service Topic Format | /devices/\${deviceId}/service |
|) Devices Reference Topic Format | /devices/\${deviceId}/reference |
| Devices Schedule Topic Format | /devices/\${deviceId}/schedule |
| 🗎 Devices Subscription Topic Format | /devices/\${deviceId}/command |
| 🔻 🆣 Authentication | Asymmetric Keys Authentication |
| 📔 Certificate Authority Certificate | file:^ConnectorAWS/VeriSign-Class 3-Public-Primary-Certifica 📄 🔹 🕨 |
| Client Certificate | file:^ConnectorAWS/1725f857d90383757e538aff0af6c5bc93eb3436f |
| Client Private Key | file:^ConnectorAWS/1725f857d90383757e538aff0af6c5bc93eb3436f |
| 🗎 Aws End Point | https://alh6fzkn9hxrj-ats.iot.eu-west-1. |
| 🗎 Aws Region | eu-west-1 |
| Certificate A R N | arn:aws:iot:eu-west-1:178126363112:cert/ |
| Access Key I D | AKIASS6JITHUB43PGXGK |
| Access Key Secret | ••••• |

Set Auto Provision to False 1

- b. Fill-in the AWS Endpoint
- c. Fill-in the AWS regiond. Fill-in the ARN certificate you saved before
- e. From the credentials csv file you can get your access key and secret.f. Finally enable the connector, you should see a successful status

Device setup

Now the connector is ready, you coud configure your devices and points.

To do so:

1. Go to Drivers <your network> <your device> and drag and drop the Aws IoT Device Ext to any point container (it may be a folder).

| | Property Sheet |
|----------------------------|---------------------------------------|
| My Network | AwsIoTDeviceExt (Aws Io T Device Ext) |
| _ | Status {ok} |
| X Tuning Policies | Fault Cause |
| | Enabled 💿 true 🗸 |
| Alarm Source Info | Connector |
| Points | |
| 🔻 🔃 Setpoint | |
| Proxy Ext | |
| InfoSource | |
| NumericInterval | |
| Return fan command | |
| Discharge Air Pressure | |
| B Global status | |
| B Running State | |
| Virtual | |
| Alarms | |
| Schedules | |
| Trend Logs | |
| Config | |
| InfoSource | |
| | |
| 2 AU102 | |

2. You should see your device on the AWS console.

| AWS IoT > Things | | | |
|------------------------------|---|----------------|------|
| Things | | | |
| | | _ | |
| Search things | Q | Fleet Indexing | Info |
| Name | | | |
| AHU_01_u0SAYCUHda9VUZ5h5Z7nR | | | |
| | | | |
| | | | |

3. Use any matt client to inspect messages, you should see tags published under the service topic corresponding to the device



Point Setup

1. Now drag and drop the Aws IoT Point Ext in your point.

| * Nav | 23 | Broporty Shoot | |
|-------------------------------|----|------------------------------------|--|
| INDV | | Property sneet | |
| 👭 🔘 🗵 🚱 My Network | • | Awsio Pointext (Aws io 1 Point ext | () |
| k X matter politica | ~ | GP Advanced Config | Advanced Config |
| P & tuning Policies | | Jan Status | {ok} |
| AHU_01 | | Fault Cause | |
| V Alarm Source Info | | 🗎 Enabled | 🔵 true 🔤 |
| | | Device Query | slot: neql:traverse n:parentDevice-> 📄 - 🕨 🕧 |
| German Setpoint Proxy Ext | | 🗎 Trigger On Value Change Only | 🔵 true 🔍 |
| InfoSource | | 🗃 Can Write | 🔵 true 🕞 |
| Vumericinterval | | | |
| AwsloTPointExt | | | |
| Return fan command | _ | | |
| Discharge Air Pressure | | | |
| | | | |
| • Palette | 51 | | |
| 🖿 🗶 🖻 🛔 btibAWS | • | | |
| AwsloTConnector | - | | |
| | | | |
| AwsloTDeviceExt | | | |
| AwsioTPointExt | | | |
| AwsinTReferenceExt | | | |
| | | | |

1. On your mqtt client you should see the tags for the point published on the service topic and a message on the events topic



Reference Setup

1. Drag and drop the reference extension to the reference component. And sepecify the query for the device to connect to.

2. change any reference property.

| Pro | operty Sheet | |
|-----|-------------------------|---|
| 1 | Ticket1 (Fiix Reference | |
| | ld 🗍 | SlkjauSHBYGy7656S876AByS66 |
| | 🗎 Link | https://example.com/t/S1kjauSHBYGy7656S8 |
| | 🗎 name | Ticketl |
| Ψ. | 🎁 AwsIoTReferenceE | t Aws Io T Reference Ext |
| | 📄 Status | {ok} |
| | 📔 Fault Cause | |
| | Enabled | 🔵 true 🔽 |
| | Device Query | station: slot:/Drivers/BacnetNetwork/AHU_01 |

3. And you should see the event.

| / devices / AHU_01_u0SAYCUHda9VUZ5h5Z7nR / events |
|---|
| |
| Value 🚡 |
| <pre>{ "pointId": "SlkjauSHBYGy7656S876AByS66", "name": "Ticket1", "link": "https://example.com/t/SlkjauSHBYGy7656S876AByS66", "id": "SlkjauSHBYGy7656S876AByS66" }</pre> |

Next Step

Step 3 Send messages to AWS from Niagara