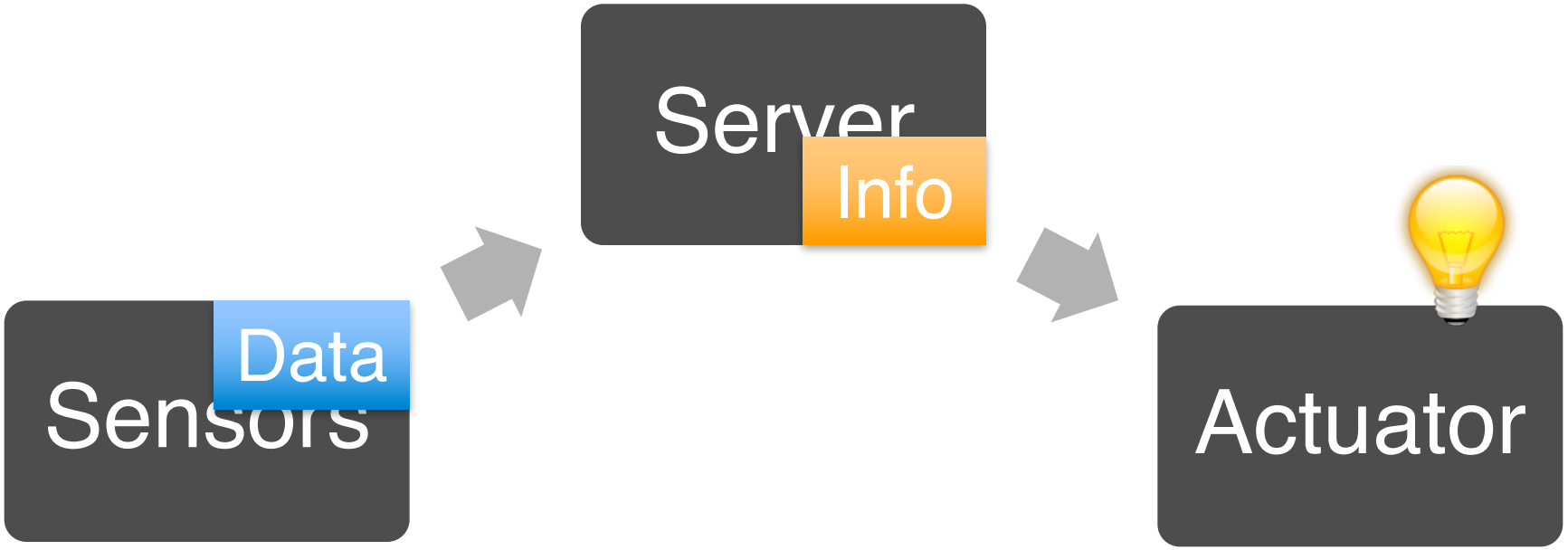
# AWS IOT Services

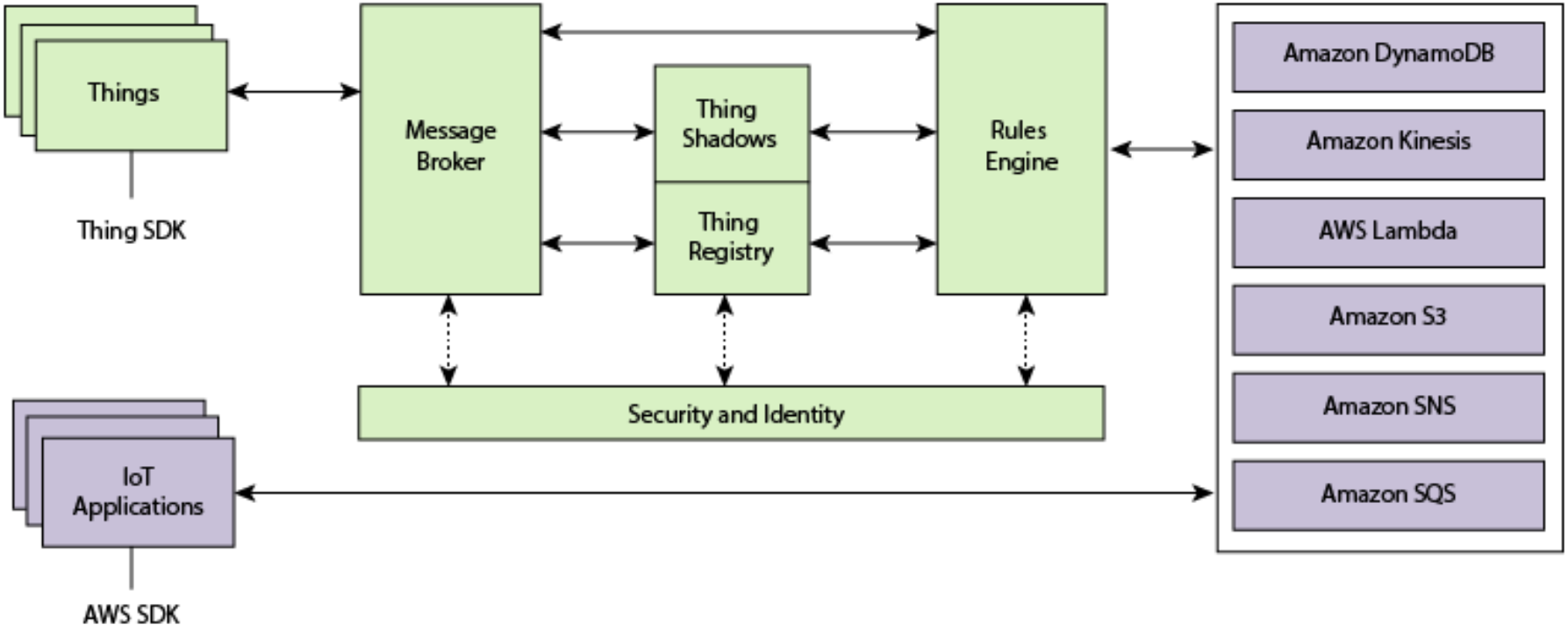
- 周君哲

NTU Iox Center

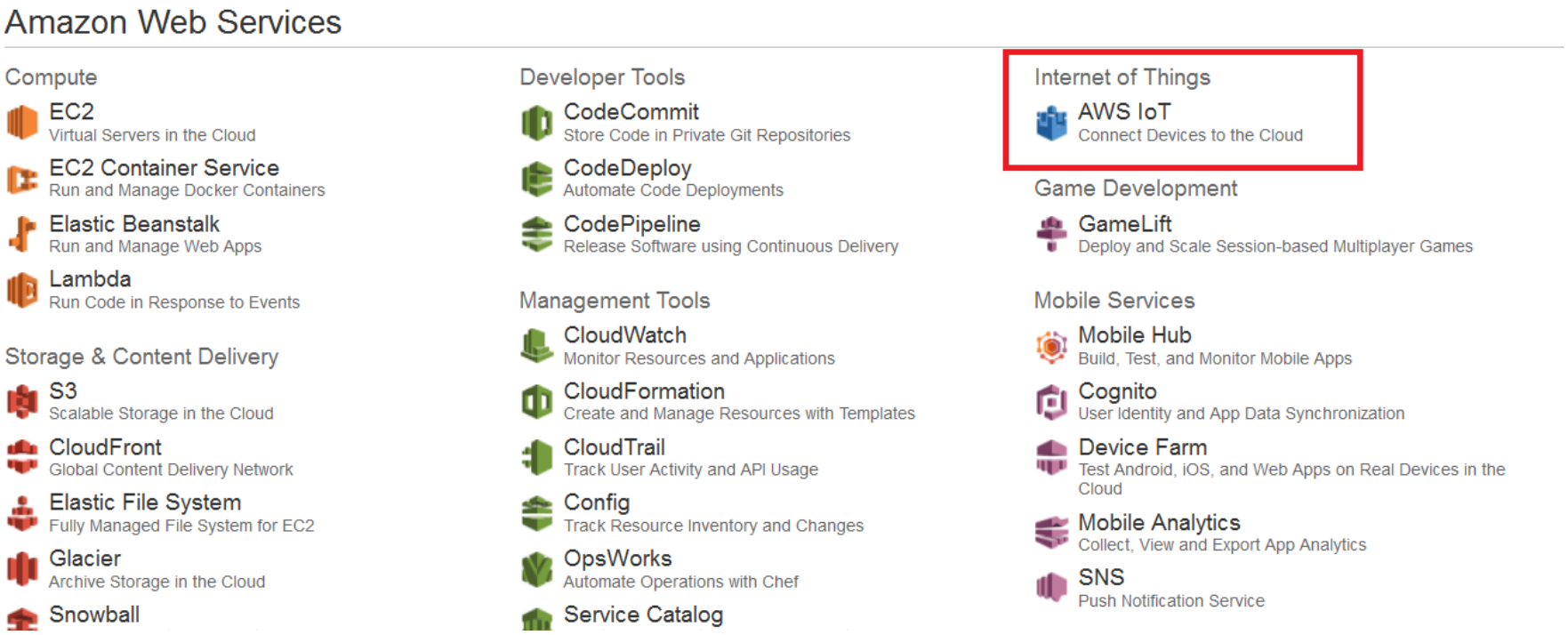
# Centralized IoT Application



# AWS IoT


Things
Thing SDK
Message Broker
Thing Shadows
Thing Registry
Rules Engine
Amazon DynamoDB
Amazon Kinesis
AWS Lambda
Amazon S3
Amazon SNS
Amazon SQS
Security and Identity
IoT Applications
AWS SDK

# Usage of AWS IoT



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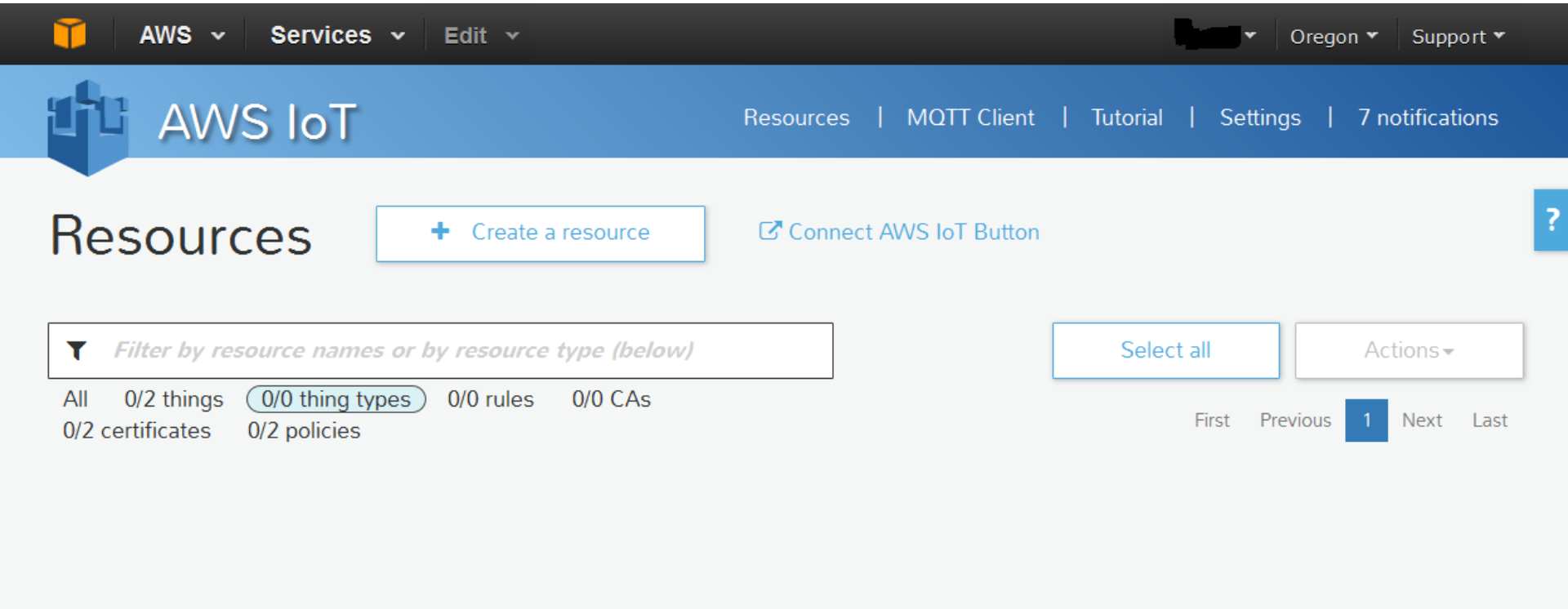

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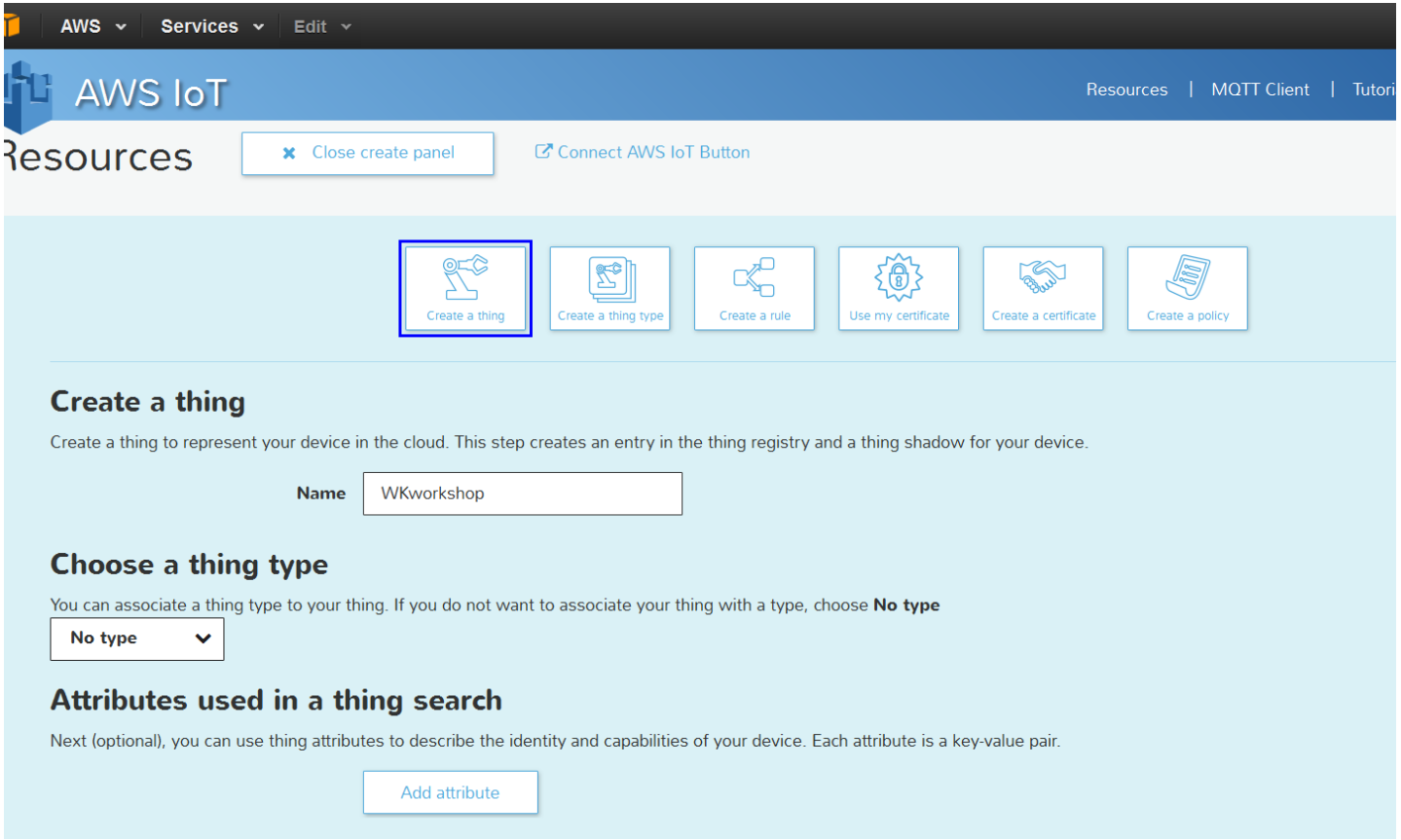

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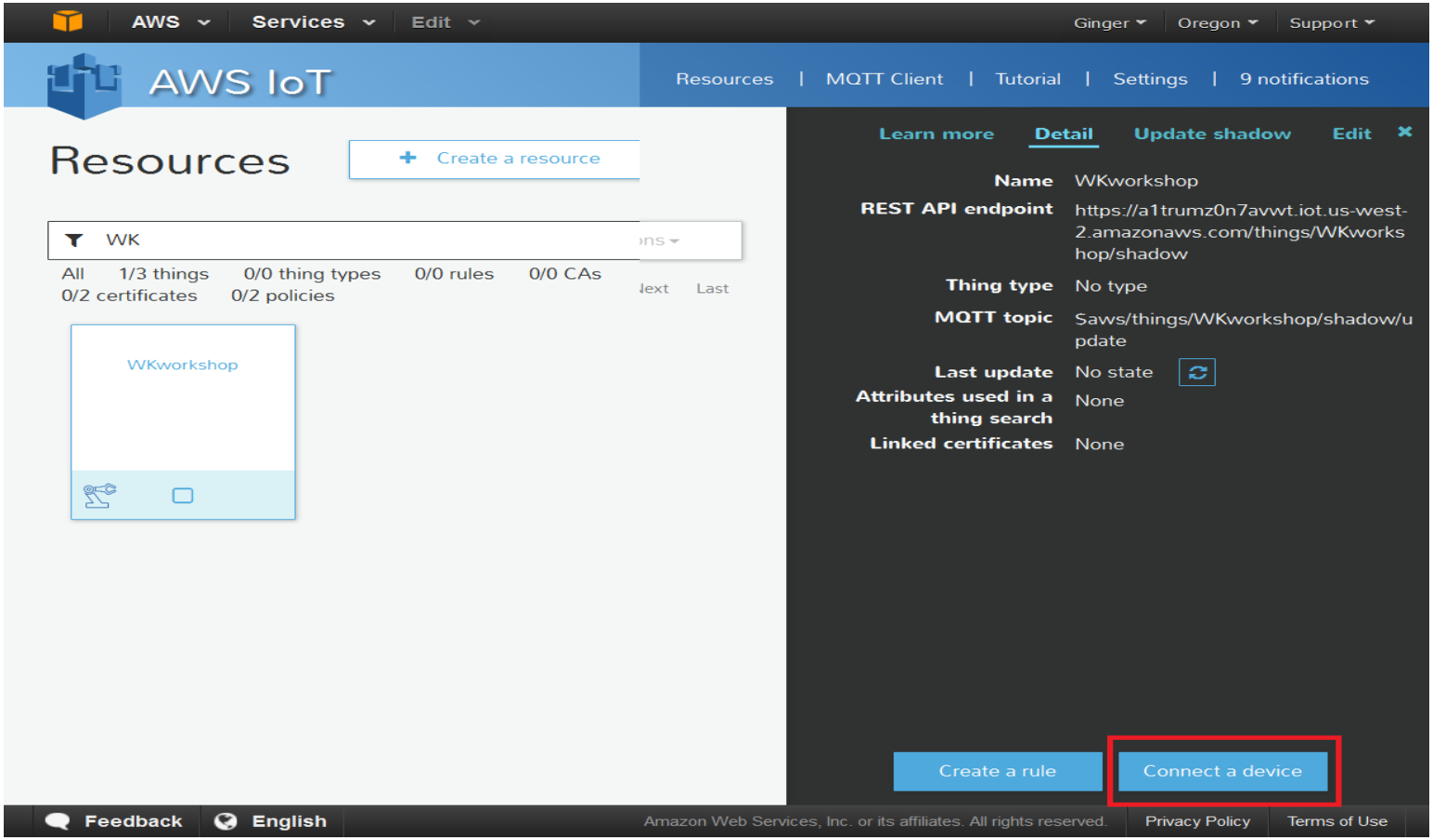

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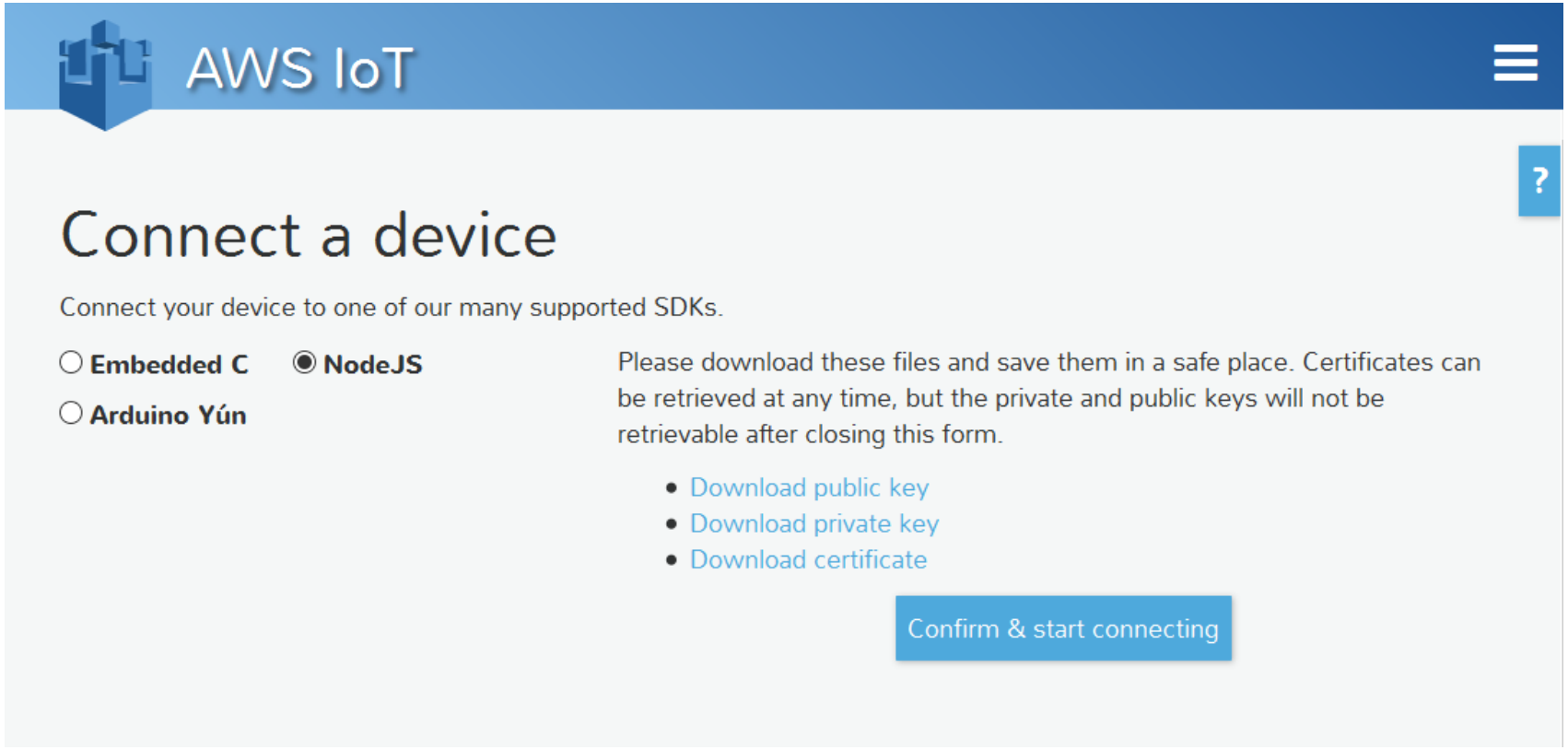


# AWS IoT Python SDK

- pip install AWSIoTPythonSDK

## AWSIoTMQTTClient

This is the client class used for plain MQTT communication with AWS IoT. You can initialize and configure the client like this:

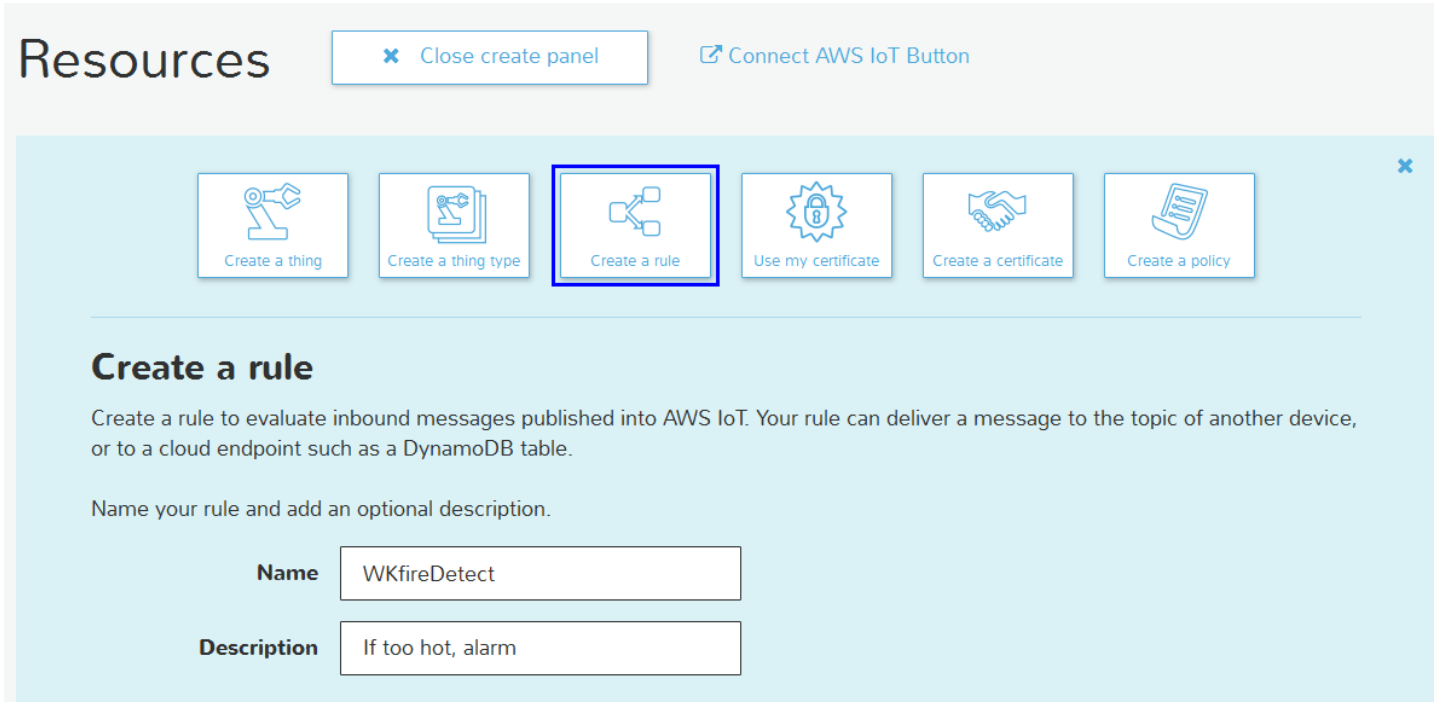
```
from AWSIoTPythonSDK.MQTTLib import AWSIoTMQTTClient

myMQTTClient = AWSIoTMQTTClient("myClientID")
myMQTTClient.configureEndpoint("YOUR.ENDPOINT", 8883)
myMQTTClient.configureCredentials("YOUR/ROOT/CA/PATH", "PRIVATE/KEY/PATH", "CERTIFICATE/PATH")
myMQTTClient.configureOfflinePublishQueueing(-1)  # Infinite offline Publish queueing
myMQTTClient.configureDrainingFrequency(2)  # Draining: 2 Hz
myMQTTClient.configureConnectDisconnectTimeout(10)  # 10 sec
myMQTTClient.configureMQTTOperationTimeout(5)  # 5 sec
```

# AWS IoT Python SDK

For basic MQTT operations, your script will look like this:

```
...
myMQTTClient.connect()
myMQTTClient.publish("myTopic", "myPayload", 0)
myMQTTClient.subscribe("myTopic", 1, customCallback)
myMQTTClient.unsubscribe("myTopic")
myMQTTClient.disconnect()
```

# AWS IoT Rules Engine



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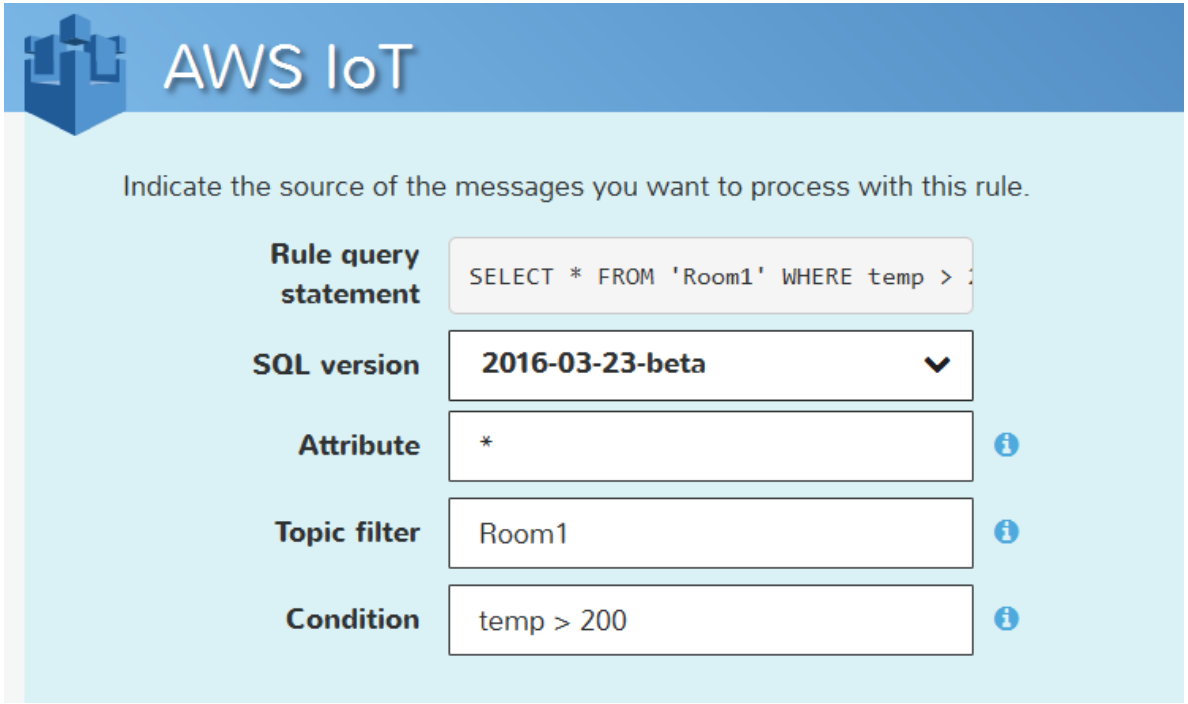

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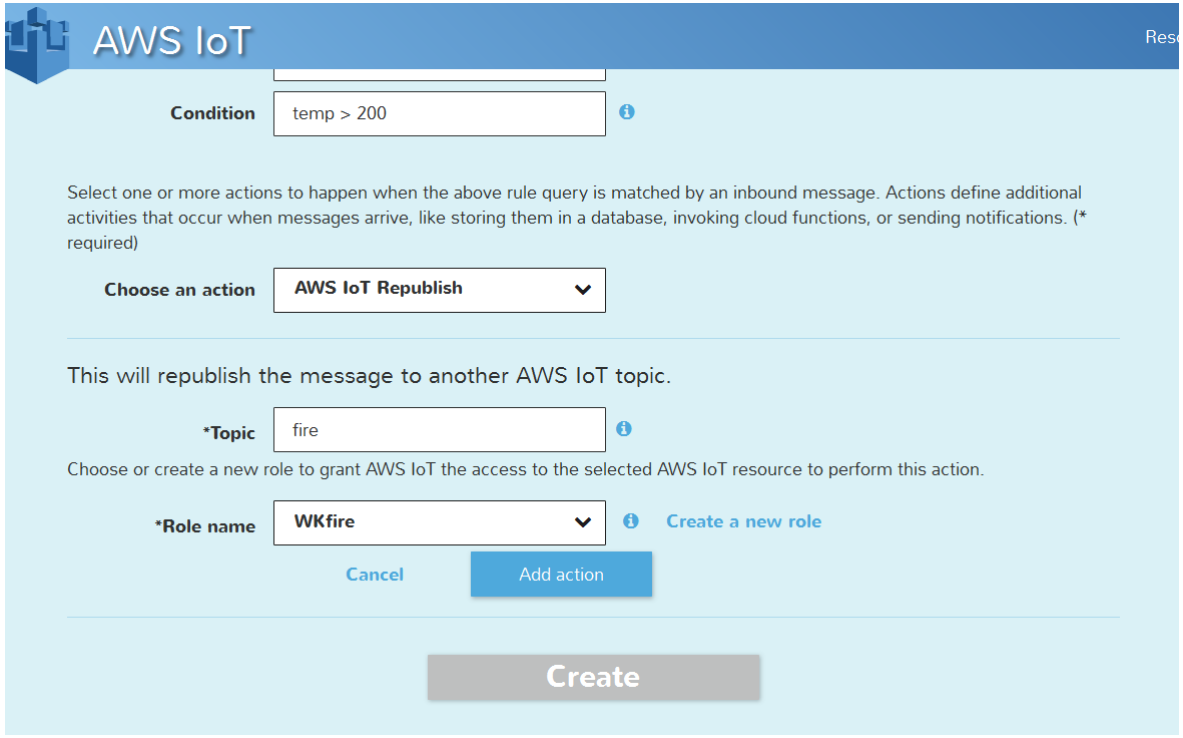
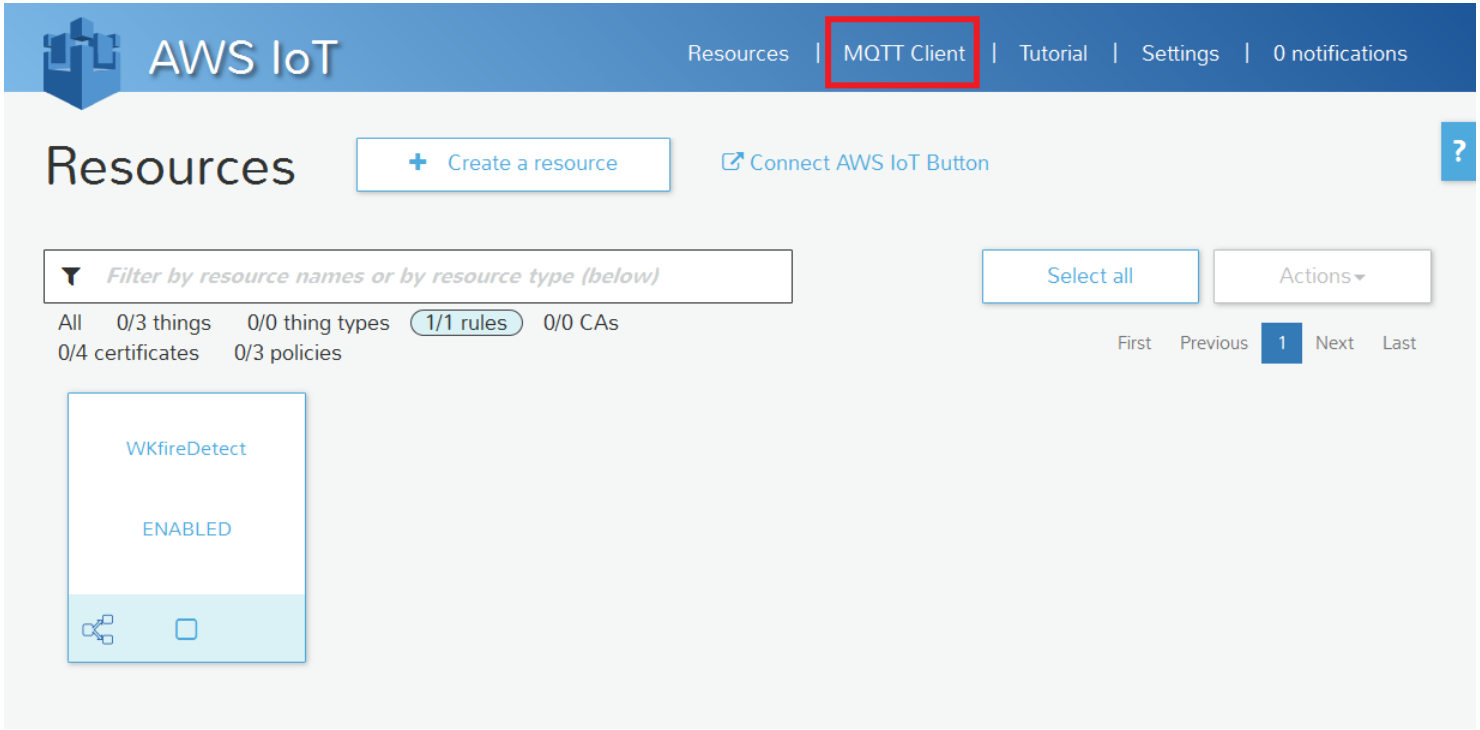


# AWS IoT MQTT Client



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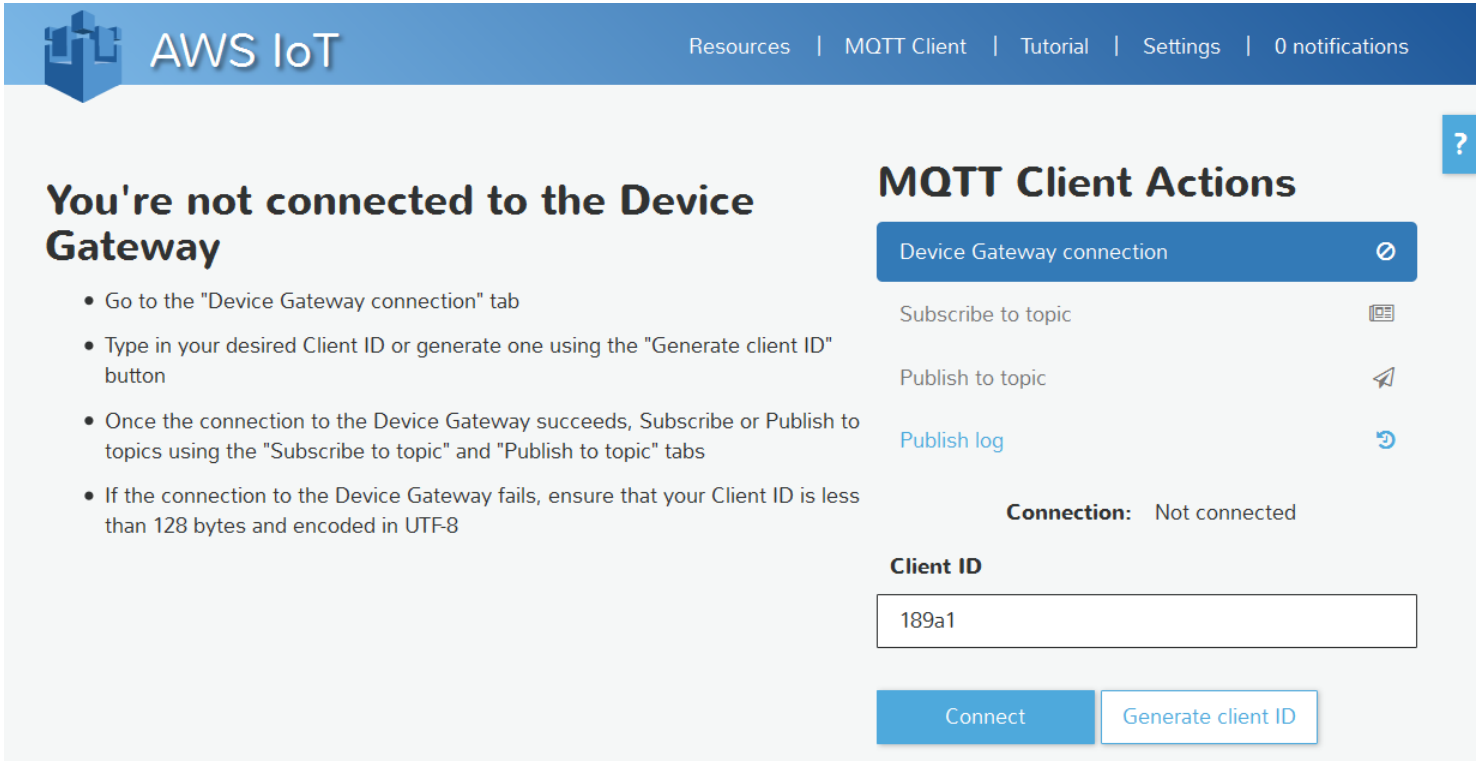

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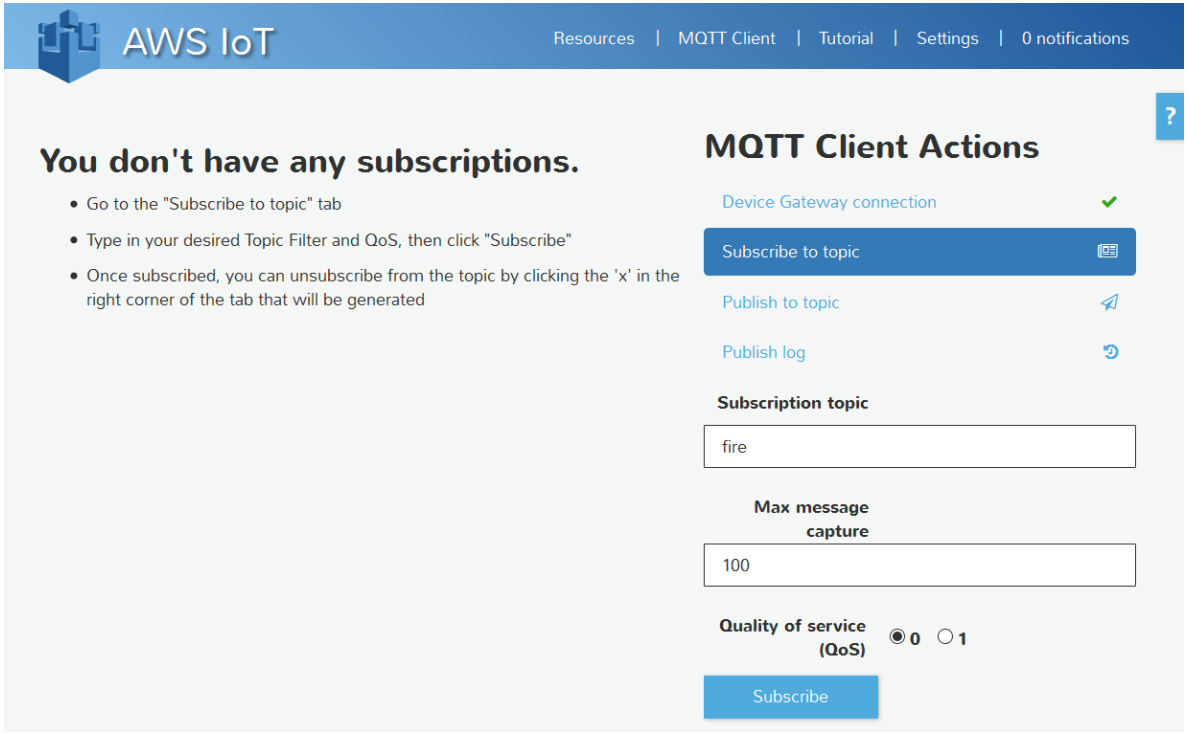

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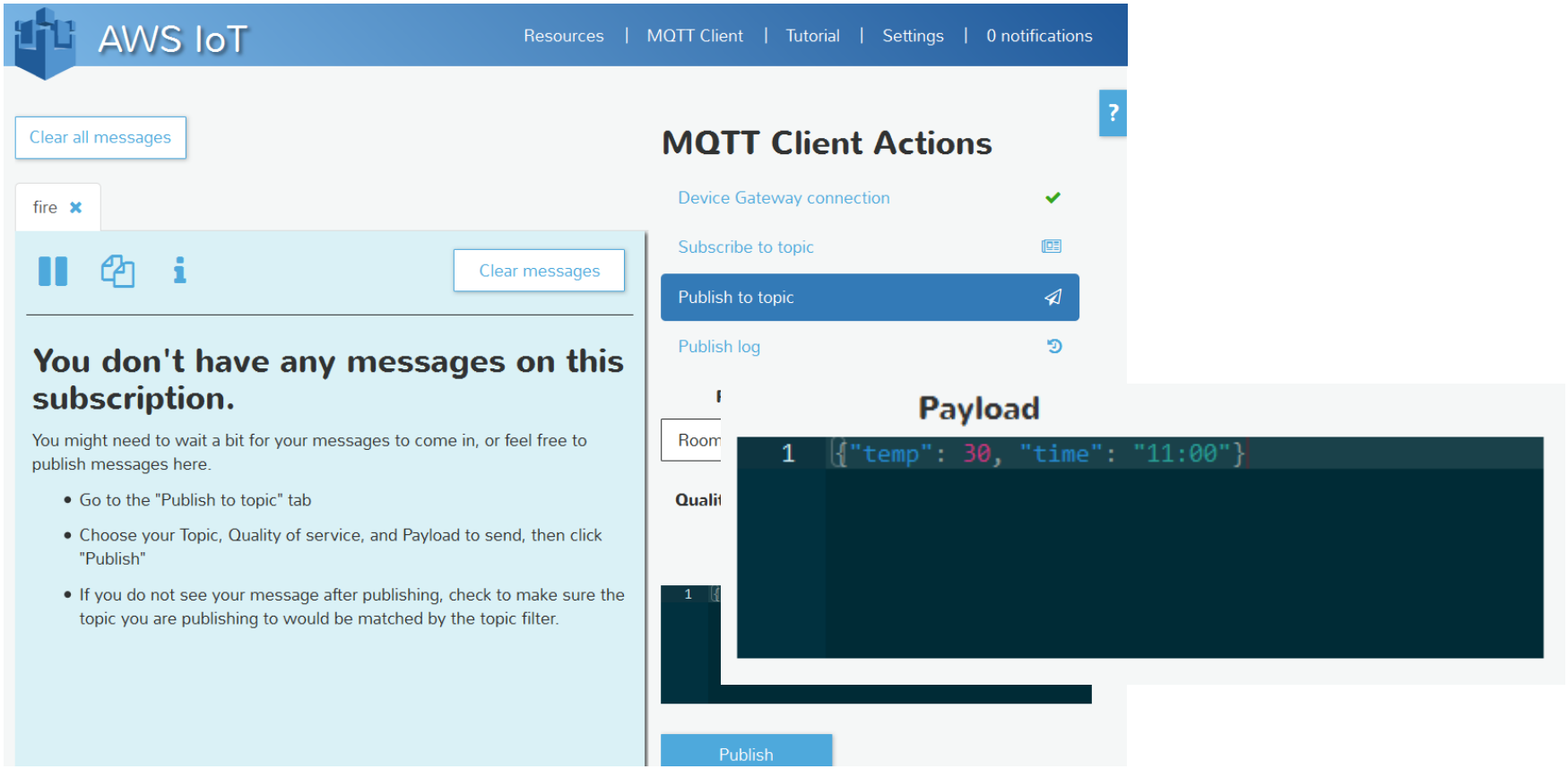

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