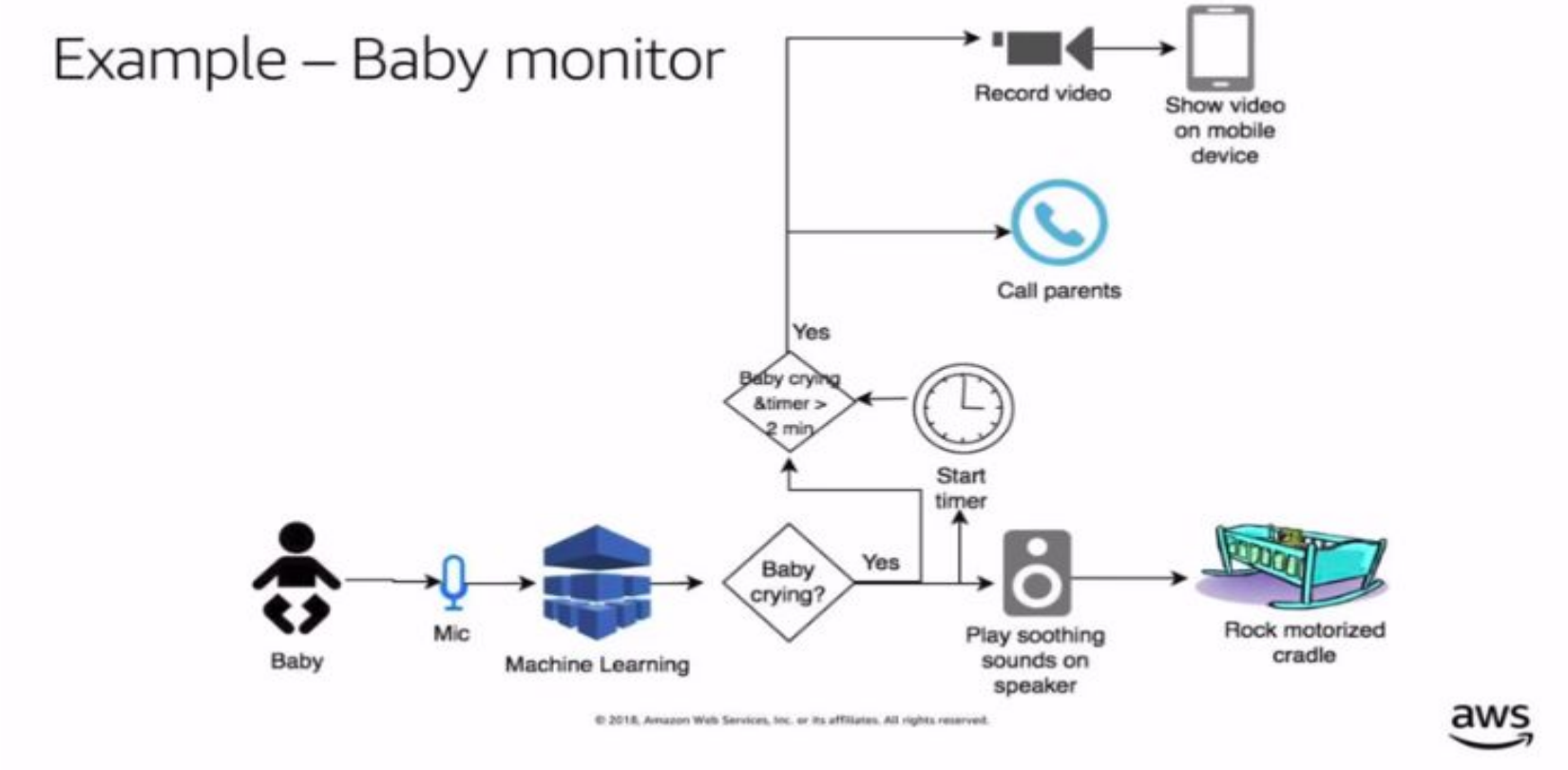
AWS IoT Graph with AWS Greengrass

Use Case


Example – Baby monitor
Record video
Show video on mobile device
Call parents
Yes
Baby crying &timer > 2 min
Start timer
Baby
Mic
Machine Learning
Baby crying?
Yes
Play soothing sounds on speaker
Rock motorized cradle
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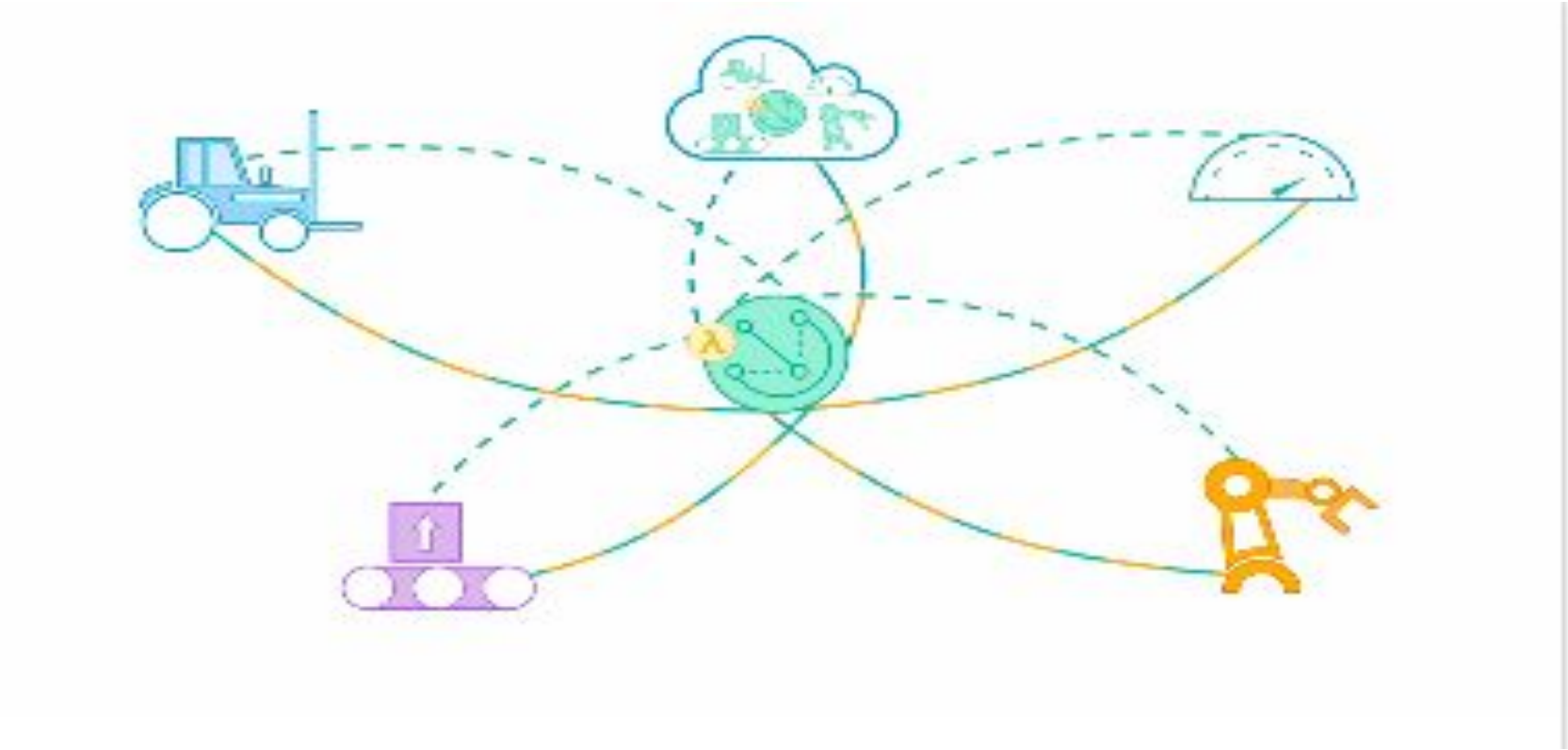
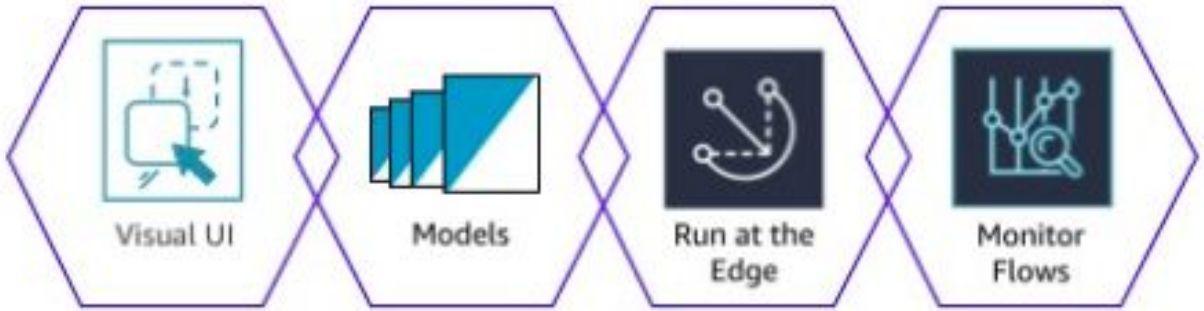
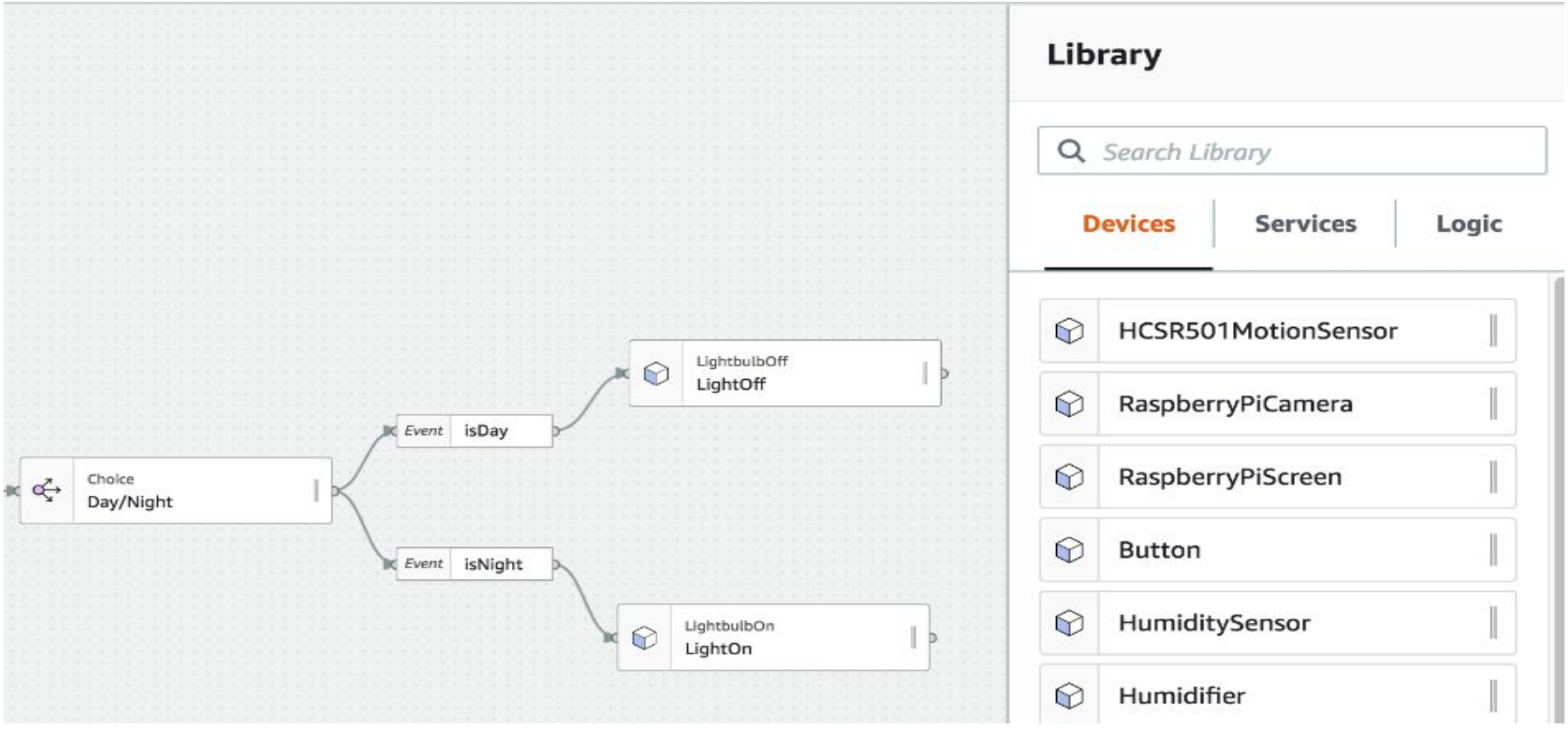
AWS Greengrass



AWS IoT Graph



Workflow

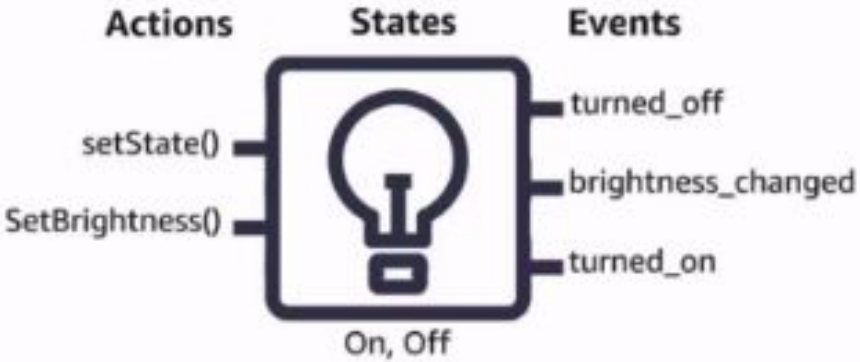

Choice
Day/Night
Event
isDay
Event
isNight
LightbulbOff
LightOff
LightbulbOn
LightOn
Library
Search Library
Devices
Services
Logic
HCSR501MotionSensor
RaspberryPiCamera
RaspberryPiScreen
Button
HumiditySensor
Humidifier

Model

Abstract low level details

Written in GraphQL using Things Data Model™

Use pre-built models or build your own



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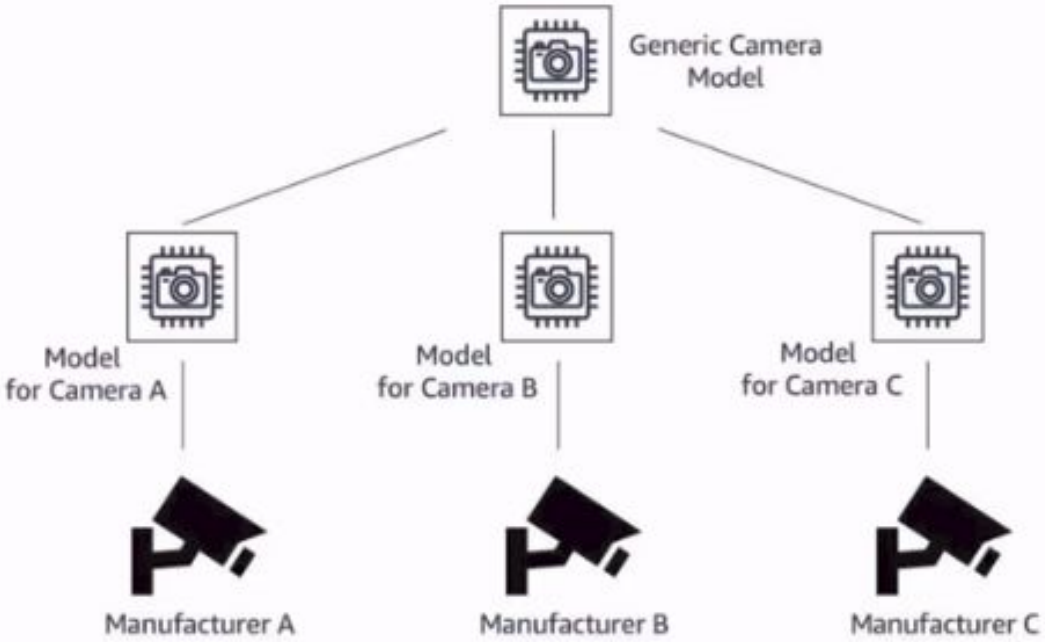
Model (con’t)

Use one model to control many devices

Avoid undifferentiated integration effort

Reusable building blocks, can be versioned



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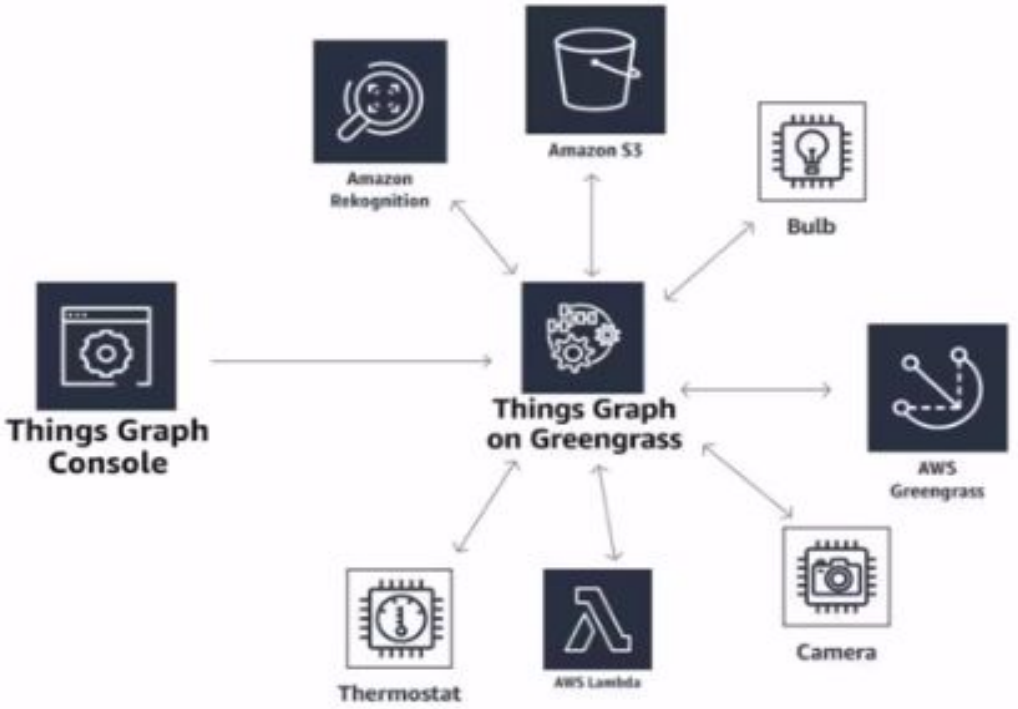
Run at edge

Design in the cloud, run on AWS Greengrass devices

Orchestrate local devices and web services like Amazon Rekognition

Native support for MQTT and Modbus protocols, with more added every month



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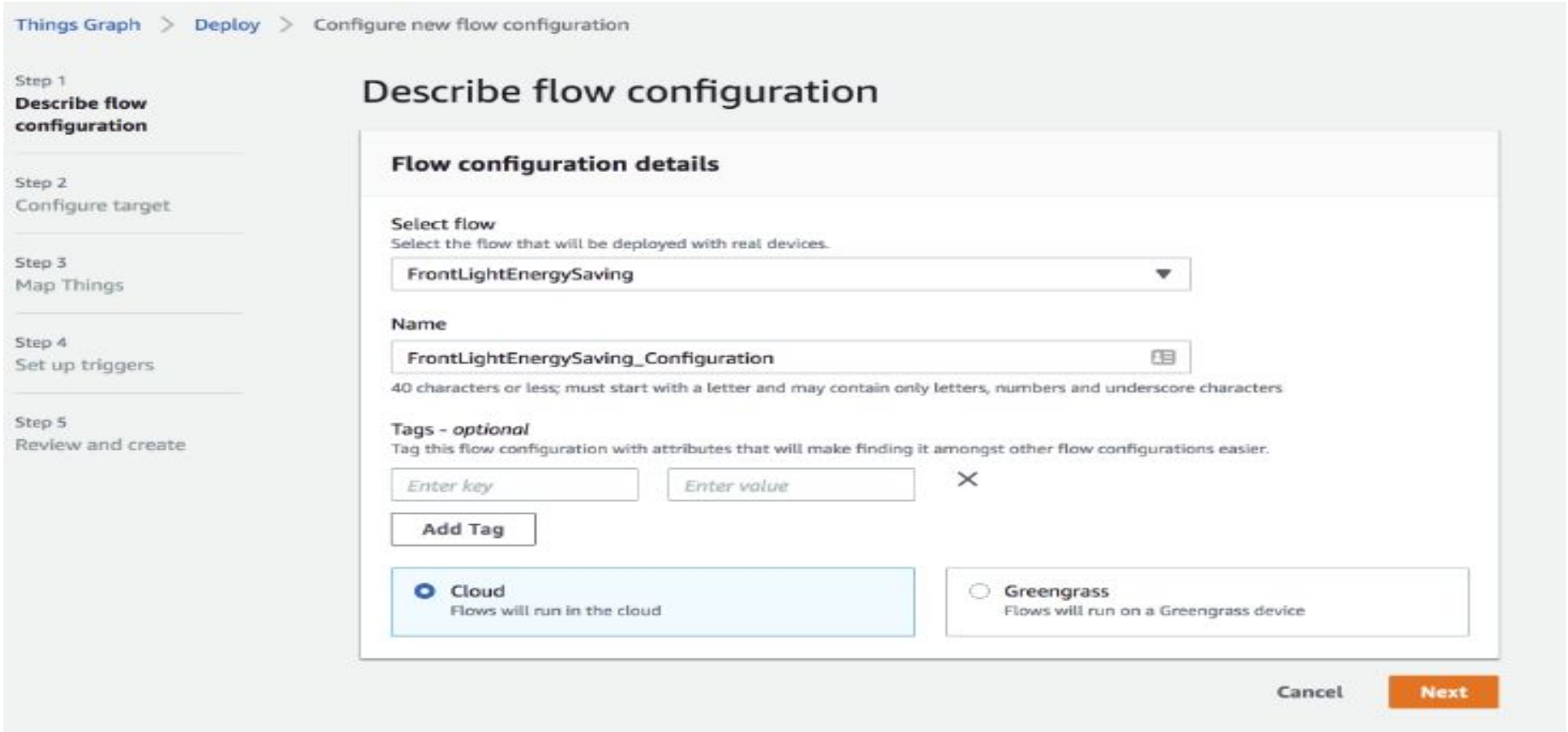
Trigger

```
1  {
2      DeviceActivity(deviceModel:'urn:tdm:us-west-2/954284049678/def
       ault:deviceModel:Camera', deviceId:'myCamera',
       out:'CamResponse') {
3          capture
4      }
5  }
6
7  {
8      DeviceActivity(deviceModel:'urn:tdm:us-west-2/954284049678/def
       ault:deviceModel:Screen', deviceId:'myScreen') {
9          display(imageUrl: "${CamResponse}")
10     }
11 }
```

Deployment


Things Graph > Deploy > Configure new flow configuration
Step 1
Describe flow configuration
Step 2
Configure target
Step 3
Map Things
Step 4
Set up triggers
Step 5
Review and create
Describe flow configuration
Flow configuration details
Select flow
Select the flow that will be deployed with real devices.
FrontLightEnergySaving
Name
FrontLightEnergySaving_Configuration
40 characters or less; must start with a letter and may contain only letters, numbers and underscore characters
Tags - optional
Tag this flow configuration with attributes that will make finding it amongst other flow configurations easier.
Enter key
Enter value
Add Tag
Cloud
Flows will run in the cloud
Greengrass
Flows will run on a Greengrass device
Cancel
Next

Questions?