MNIST API

Overview

- MNIST API Structure
- Description
- Execution

MNIST API Structure

- EC2
  - Tensorflow - Machine Learning Framework
  - Flask - Web server
  - Train a model
  - Load trained model
    - Link to pre trained weights will be provided
  - Return the prediction for the image
    - ie. 1, 2, 3, ...
- Client
  - Allows user to draw a digit
  - Sends an image to the web server

Description

- API where anyone can send an image and have it recognized
- Don’t need to do the image processing on the client
- Acts similar to how Amazon Rekognition works

Homework

- Read:
  - Machine Learning
  - Tensorflow
  - MNIST
  - Flask
- Try this project for yourself
- Try using it as part of one your projects

Facebook Chatbot

Overview

- Chatbot Structure
  - Facebook
  - AWS
- Description
- Execution

Chatbot Structure

- Facebook
  - Facebook Page - To message
  - Facebook App - Sends messages to AWS and back to user
  - Note: Can be used with other services such as Slack or Kik
- AWS
  - Lex Bot - Processes messages and creates intents
  - Lambda - Triggers a SNS topic
  - SNS - Sends an invoice to owner
  - Note: All services for this bot should be in US-EAST-1

Description

- Allows for users to use their favorite messaging platforms to access certain services
- Makes for a better user interaction

Homework

- Try this project for yourself
- Add a new feature to it
- Try it with another platform other than Facebook
- Try some of the Amazon Lex exercises

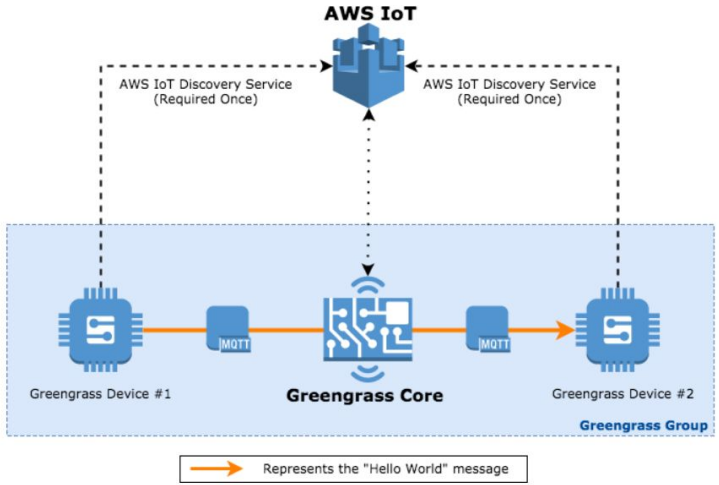
AWS Greengrass

Overview

- AWS Greengrass
- Demo Description
- Execution

AWS Greengrass

- Local AWS
- Ability to use AWS Lambda, AWS IoT and other services offline
- Runs on a Greengrass Core device
- Greengrass Devices connect to Core rather than the cloud



Demo Description

- Greengrass Core - Laptop
  - Acts as message broker for publisher and subscriber
- Greengrass Publisher - Laptop
  - Sends a “Hello World” message to the subscriber
- Greengrass Subscriber - Dragonboard
  - Listens for a message from publisher
  - Blinks LED when a message is received

Homework

- Read up on Greengrass
- Try the Greengrass demo for yourself
- Build a small project using Greengrass
  - Use AWS Lambda
  - Use AWS IoT