AIoT

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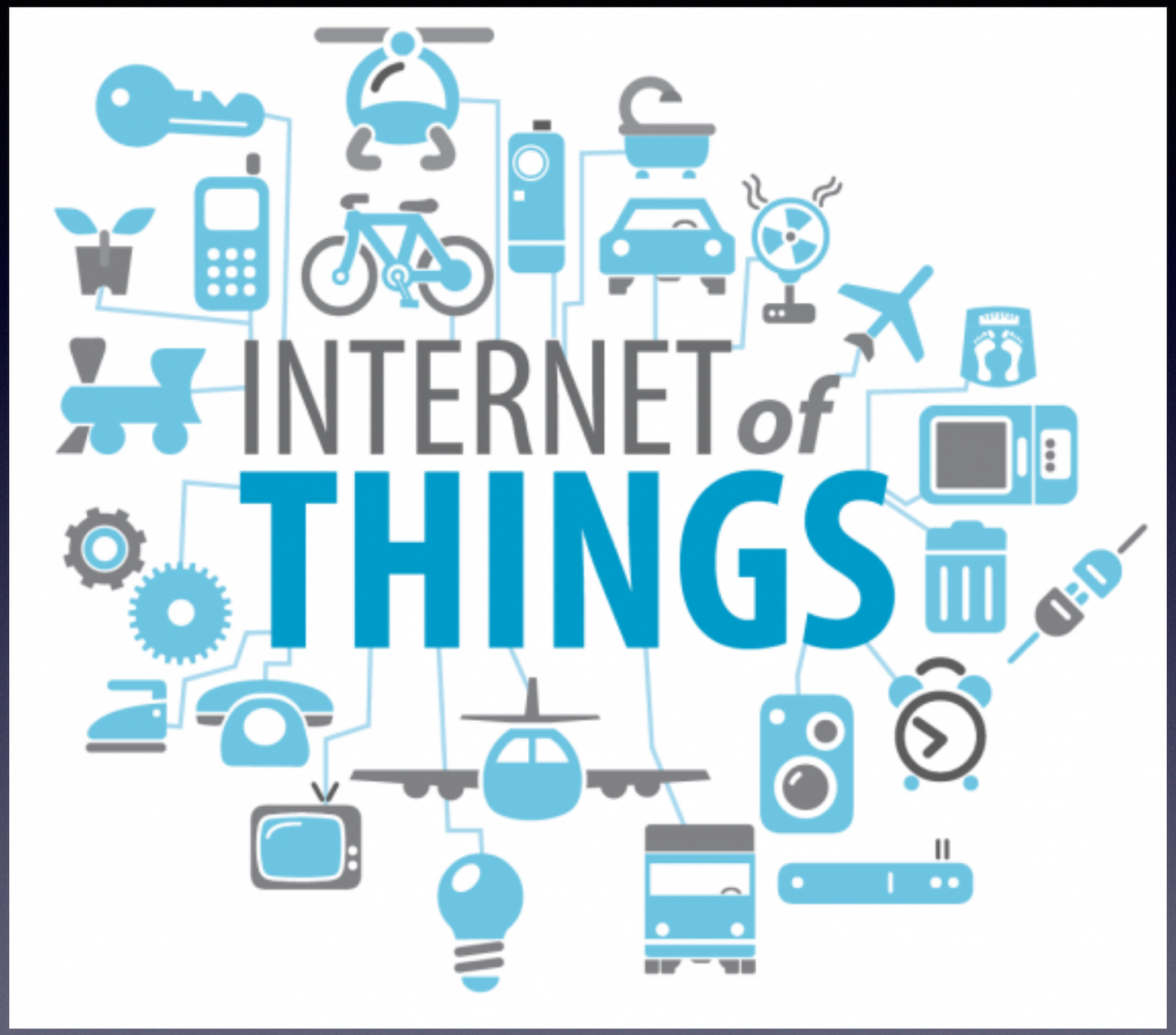

INTERNET of
THINGS

什麼是 IoT 物聯網

- 物聯網 (Internet of Things, IoT) 是一個基於網際網路或傳統電信網路，讓所有能夠被獨立定址的物件實現互聯互通的網路
- 物聯網概念起於比爾蓋茲 1995 年未來之路一書

IoT 演進

- Internet 網際網路興起，造就最原始的 IoT
- Cloud 雲端
- Big Data 大數據

- Cloud Computing 雲端運算
- AI 人工智慧
- AI + IoT = AIoT
- Edge Computing 邊緣運算

通訊方法

- 網路線
- WiFi、藍芽
- 電信網路 (3G, NBIoT, 4G, Cat 1, Cat M1)
- LoRa
- SigFox

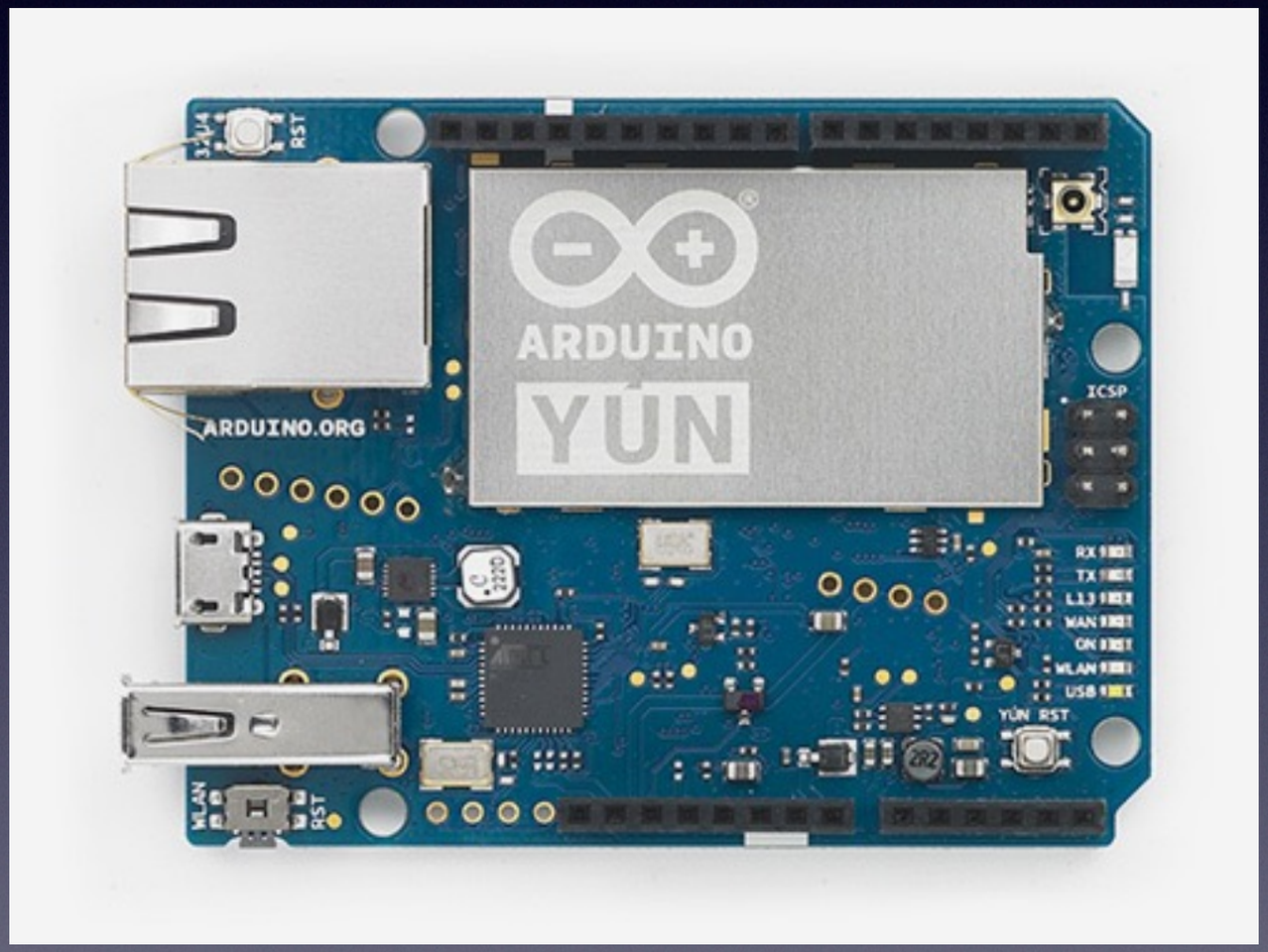
Scaling up in performance and mobility

Scaling down in complexity and power

LTE Advanced	LTE Cat-1	Cat-M1	NB-IoT
> 10 Mbps n x 20 MHz	Up to 10 Mbps 20 MHz	10s of kbps up to 1 Mbps ~ 1 MHz narrowband	Up to 10s of kbps ~ 200 kHz narrowband
Today+	Release 12	Release 13 & beyond	Release 13 & beyond
車聯網	綠能管理	健康管理	智慧建築
		智慧穿戴	智慧停車
數位看板	智慧工業	資產追蹤	環境監測
視訊監控		智慧安防	智慧三錶

物聯網與雲端

Arduino Yún



https://www.arduino.cc/en/Main/ArduinoBoardYun

M5Stack

https://m5stack.com

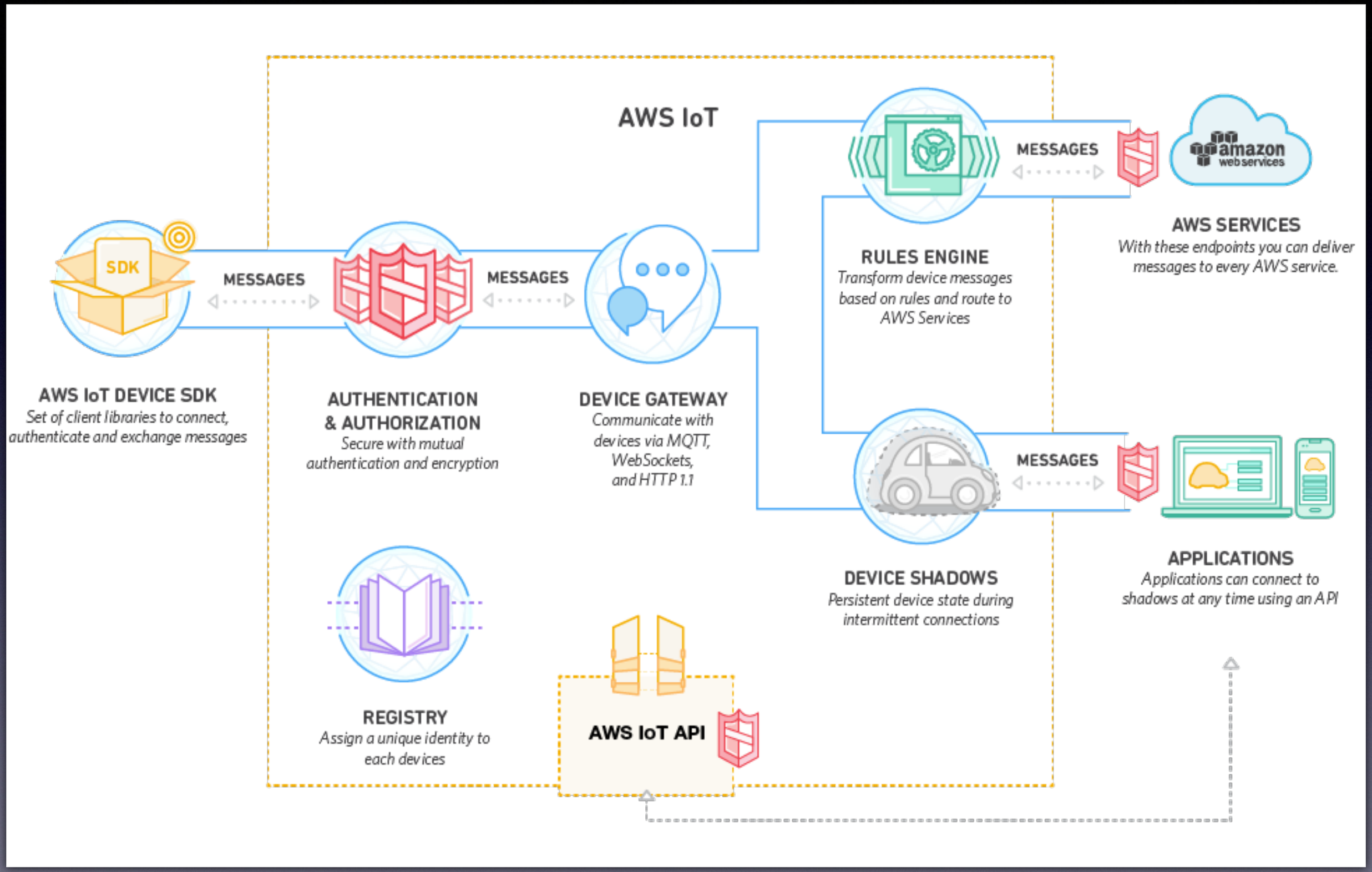
RASPBERRY PI

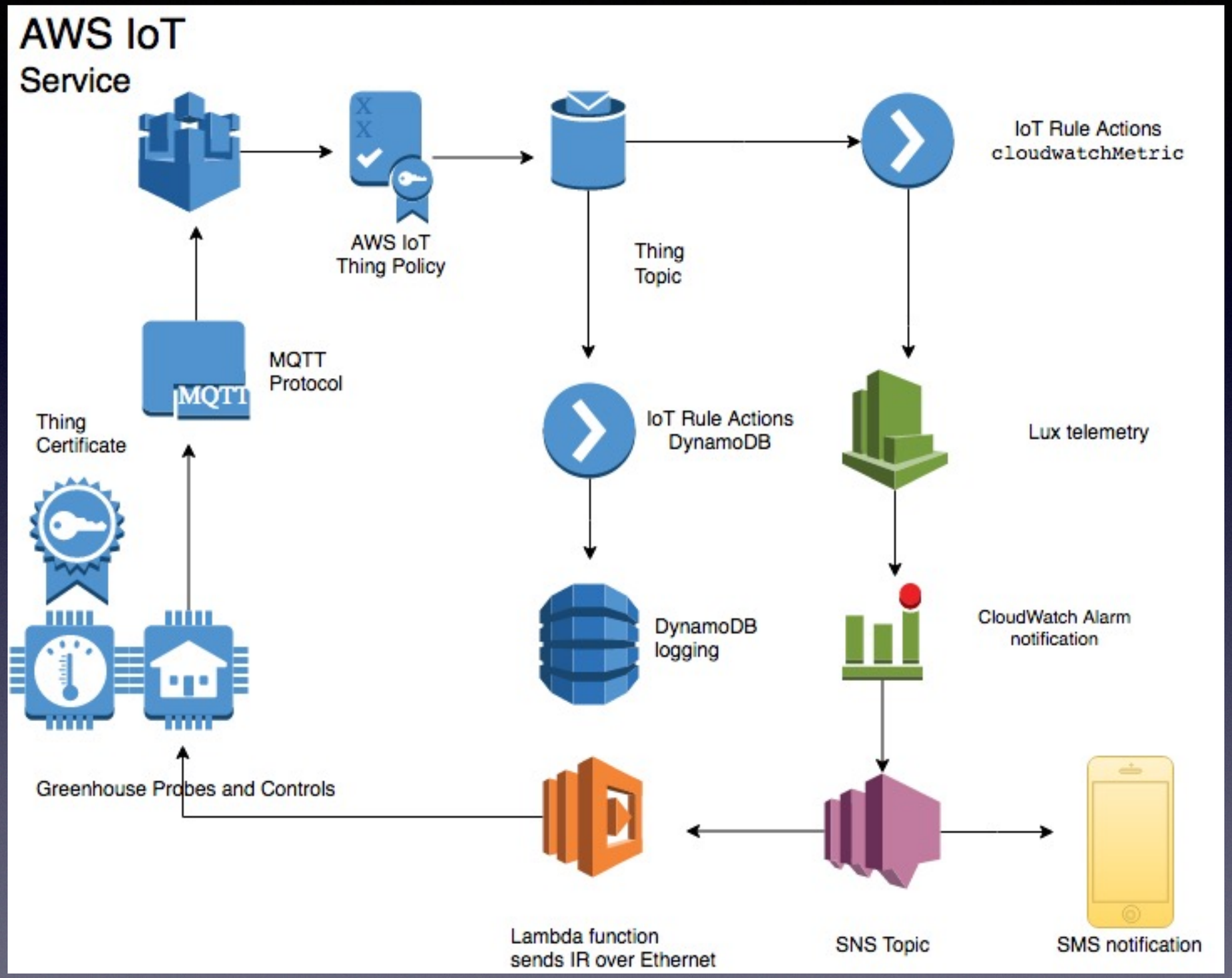
https://www.raspberrypi.org/products/raspberry-pi-3-model-b/

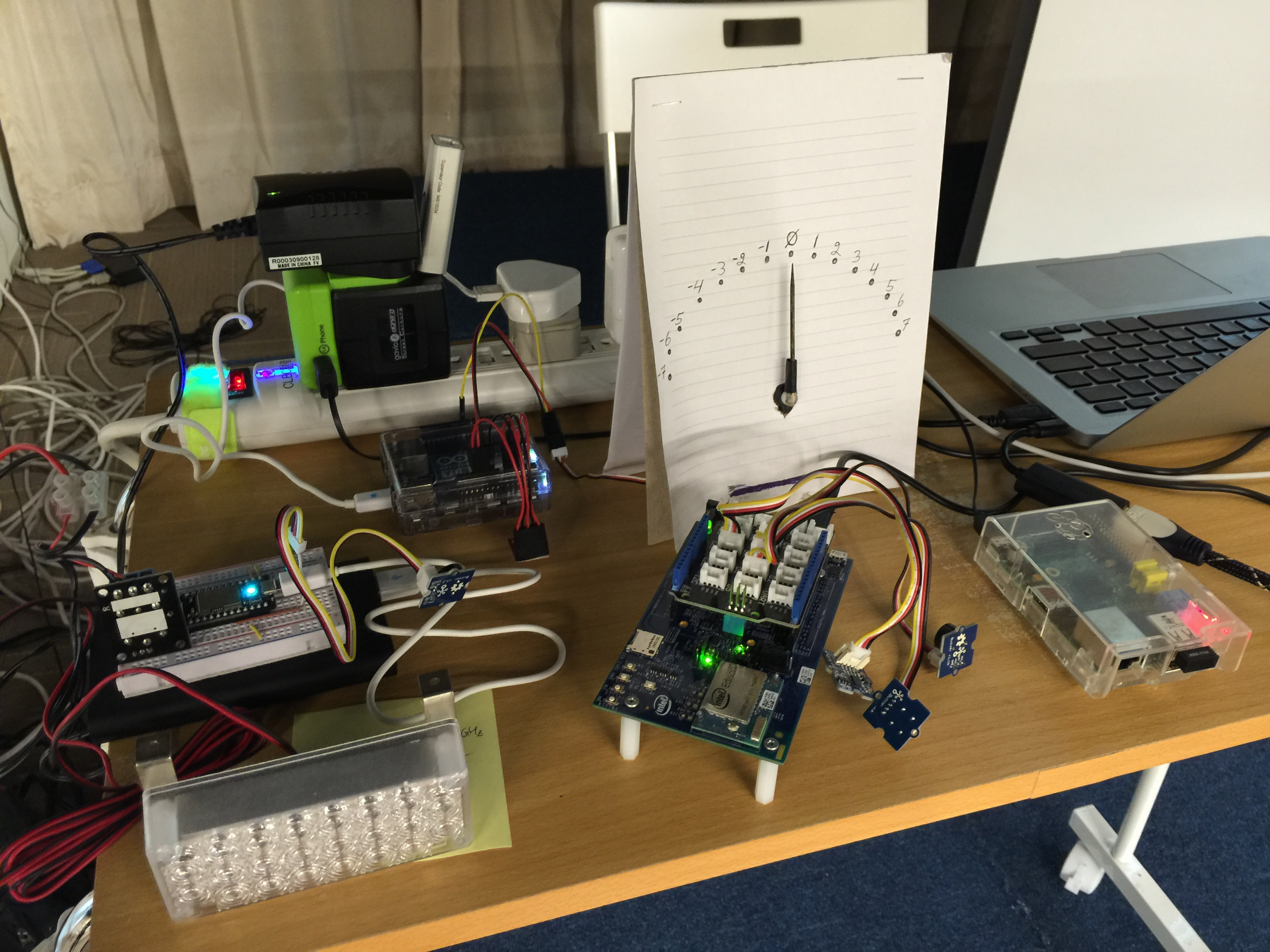
Google Cloud Platform

amazon web services

Microsoft Azure


AWS IoT
SDK
MESSAGES
MESSAGES
MESSAGES
MESSAGES
amazon
webservices
AWS IoT DEVICE SDK
Set of client libraries to connect, authenticate and exchange messages
AUTHENTICATION & AUTHORIZATION
Secure with mutual authentication and encryption
DEVICE GATEWAY
Communicate with devices via MQTT, WebSockets, and HTTP 1.1
RULES ENGINE
Transform device messages based on rules and route to AWS Services
AWS SERVICES
With these endpoints you can deliver messages to every AWS service.
DEVICE SHADOWS
Persistent device state during intermittent connections
APPLICATIONS
Applications can connect to shadows at any time using an API
REGISTRY
Assign a unique identity to each devices
AWS IoT API


AWS IoT
Service
AWS IoT
Thing Policy
Thing
Topic
IoT Rule Actions
cloudwatchMetric
MQTT
Protocol
MQTT
Thing
Certificate
IoT Rule Actions
DynamoDB
Lux telemetry
DynamoDB
logging
CloudWatch Alarm
notification
Greenhouse Probes and Controls
Lambda function
sends IR over Ethernet
SNS Topic
SMS notification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MADE IN CHINA FV
govio
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物聯網應用

RB01(NF)
dyson
ロボット掃除機
税抜
138,000円
メーカー価格
オープン
税込149,040円
ビック
特価
さらに10%
ポイント
掃除スタイル
カメラ型
段差対応
2cm
稼働面積
最大一畳
運転音
−dB
充電時間
約2.45時間
集塵容量
0.33L
運転時間
約45分
本体重量
2.42kg
からまり防止
−
リモコン
−
タイマー機能
○
自動充電
○
付属品
充電ドック、バッテリー充電器
dyson 360 eye
dyson 360 eye
見本
TOTAL ROOT CYCLONE™ TECHNOLOGY

1381B
中央・総武線
28
B28
JR
6 DOORS

http://www.jreast-app.jp