ReButton

2019/9/6

Takashi Matsuoka

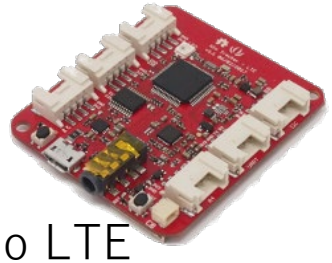
Takashi Matsuoka (@matsujirushi12)

Microsoft® MVP Most Valuable Professional

2017～ MVP for Windows Development

seeed studio

「e」3つ

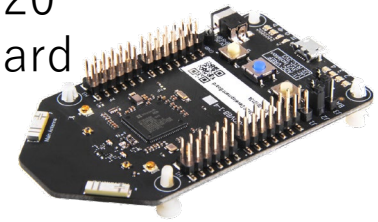


Wio LTE

Wio 3G

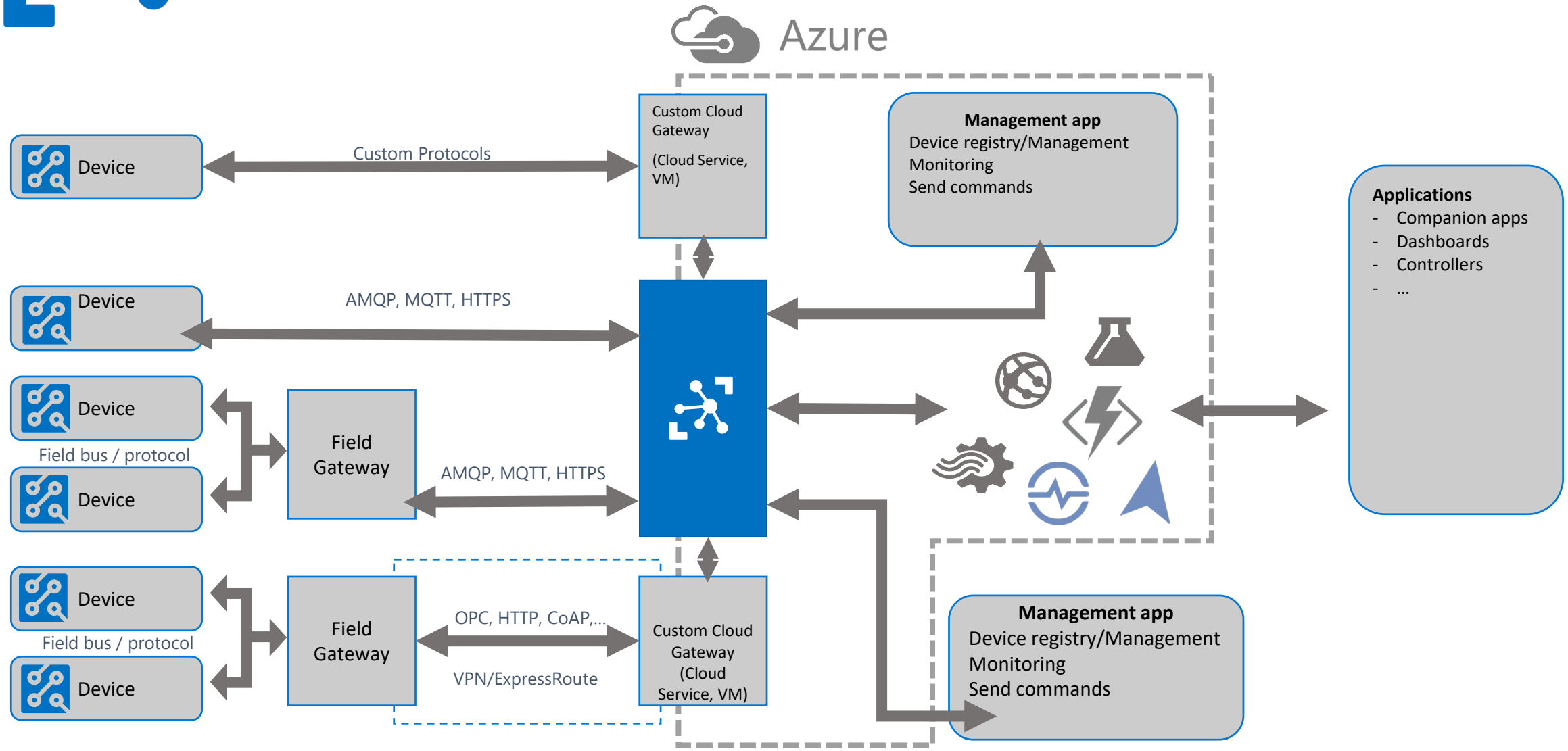
Wio LTE M1/NB1(BG96)

MT3620 DevBoard



de:code 2019

Azure IoT Hub - Cloud Gateway -



Build 2018 – BRK3803 Azure IoT Platform services - The modern IoT developer toolbox

Azure IoT Hub – クイックスタート

Prepare the development environment

For this quickstart, you'll be using the Azure IoT device SDK for C.

You can use the SDK by installing the packages and libraries for the following environments:

- **Linux**: apt-get packages are available for Ubuntu 16.04 and 18.04 using the following CPU architectures: amd64, arm64, armhf, and i386. For more information, see Using apt-get to create a C device client project on Ubuntu.
- **mbed**: For developers creating device applications on the mbed platform, we've published a library and samples that will get you started in minutes witH Azure IoT Hub. For more information, see Use the mbed library.
- **Arduino**: If you're developing on Arduino, you can leverage the Azure IoT library available in the Arduino IDE library manager. For more information, see The Azure IoT Hub library for Arduino.
- **iOS**: The IoT Hub Device SDK is available as CocoaPods for Mac and iOS device development. For more information, see iOS Samples for Microsoft Azure IoT.

https://docs.microsoft.com/ja-jp/azure/iot-hub/quickstart-send-telemetry-c

Azure IoT Hub – クイックスタート

mbed library for mbed Developer Workspace

For developers creating device applications on the mbed platform, we have published a library and samples that will get you started in minutes witH Azure IoT Hub. This library and the samples have been tested with the following boards:

- Freescale FRDMK64-F
- Renesas GR-PEACH
- SADE.IO GSM Gateway

To use the samples and the Azure IoT device SDK library in your mbed applications, here are the basic steps:

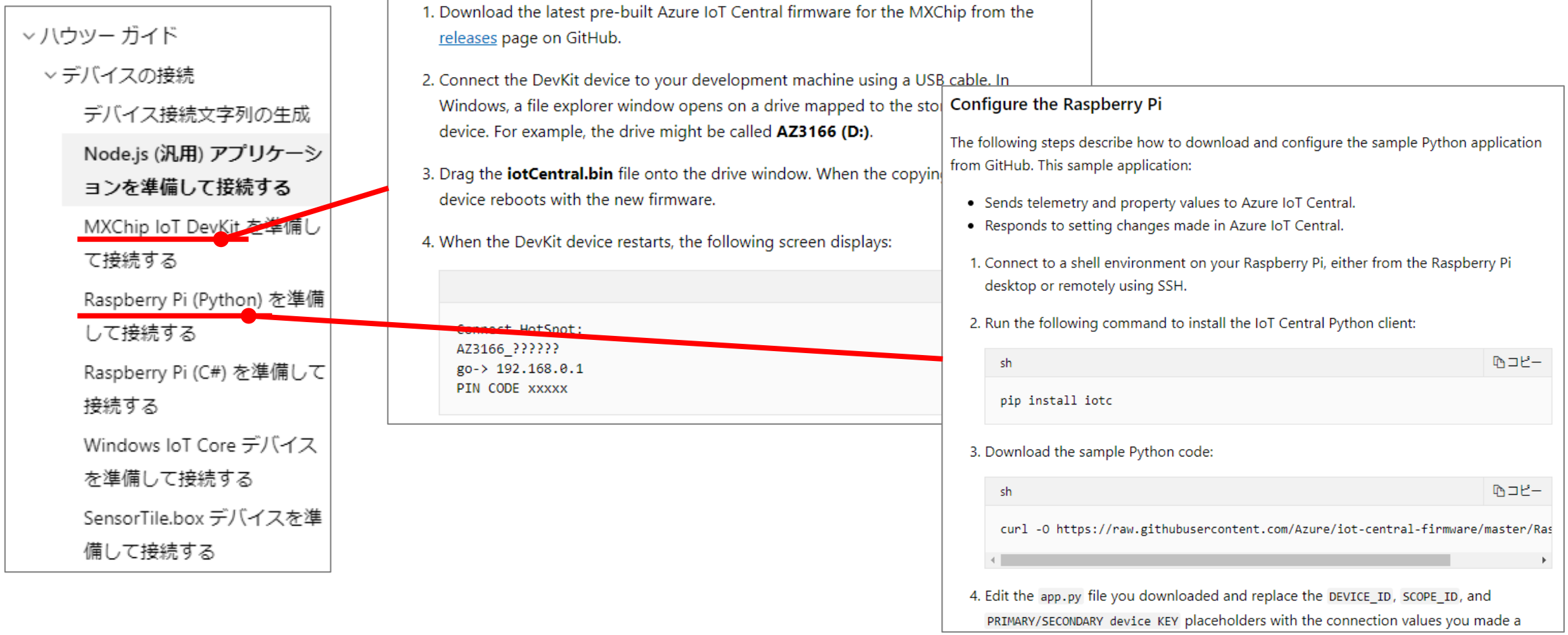
- Prepare your device as instructed by the device manufacturer to connect it to the mbed development environment
- In the mbed Developer Workspace click **Import** on the main menu. Then click the **Click here to import from URL** link next to the mbed globe logo.
- In the popup window, enter the link for the sample code you want to try (you can find Azure IoT Hub samples here).
- Adapt the code to use the right credentials for your device, and click **Compile** to generate the binary for your board.
- Download the binary to your device and run.

You can find detailed instructions for each of the tested devices in the Azure IoT device catalog:

- Freescale FRDMK64-F
- Renesas GR-PEACH
- SADE.IO GSM Gateway

https://github.com/Azure/azure-iot-sdk-c/blob/master/iothub_client/readme.md#mbed

Azure IoT Central - ハウツーガイド



https://docs.microsoft.com/ja-jp/azure/iot-central/howto-connect-devkit

エッジ　クラウド

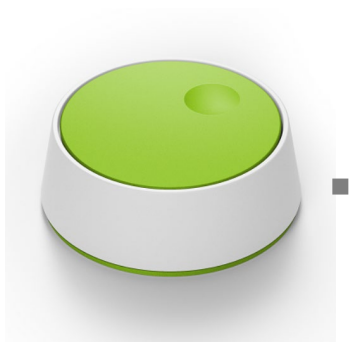
Internet

ReButton

Azure

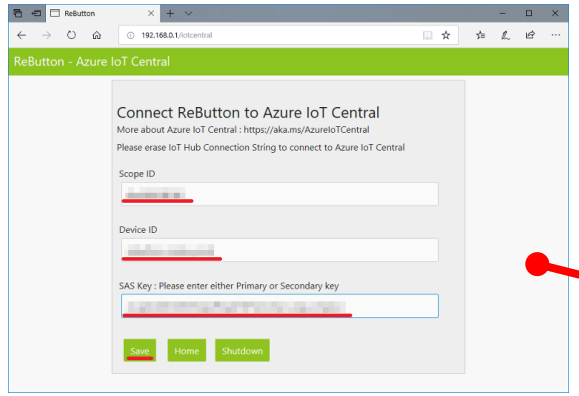
- ✓ Azure IoT Hub/Azure IoT Central
- ✓ **最小限のセットアップ**
- ✓ 低価格
- ✓ 電池駆動
- ✓ **グローバル**
- ✓ **カスタマイズ**

最小限のセットアップ



ReButton

Button LED



User

Wi-Fi 2.4G

Wi-Fi
Access Point

Internet

Azure IoT Central

Azure IoT Hub

✓ Wi-Fiアクセスポイント情報

✓ Azure接続情報

グローバル

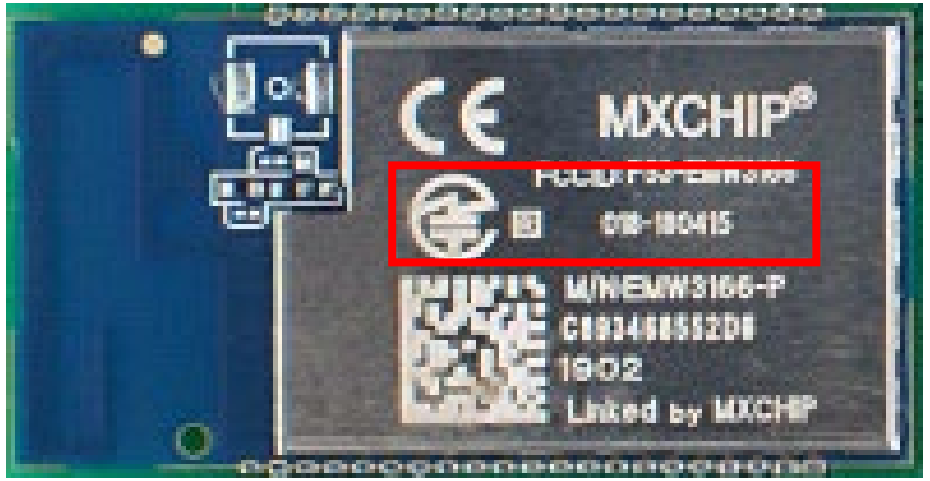
IoT in Action

Barcelona, Spain
Santa Clara, USA
Taipei, Taiwan
Shinzhen, China
New York, USA
Seoul, South Korea
Tokyo, Japan
Orlando, USA
Nuremberg, Germany
Sydney, Australia
Hanover, Germany
Taipei, Taiwan

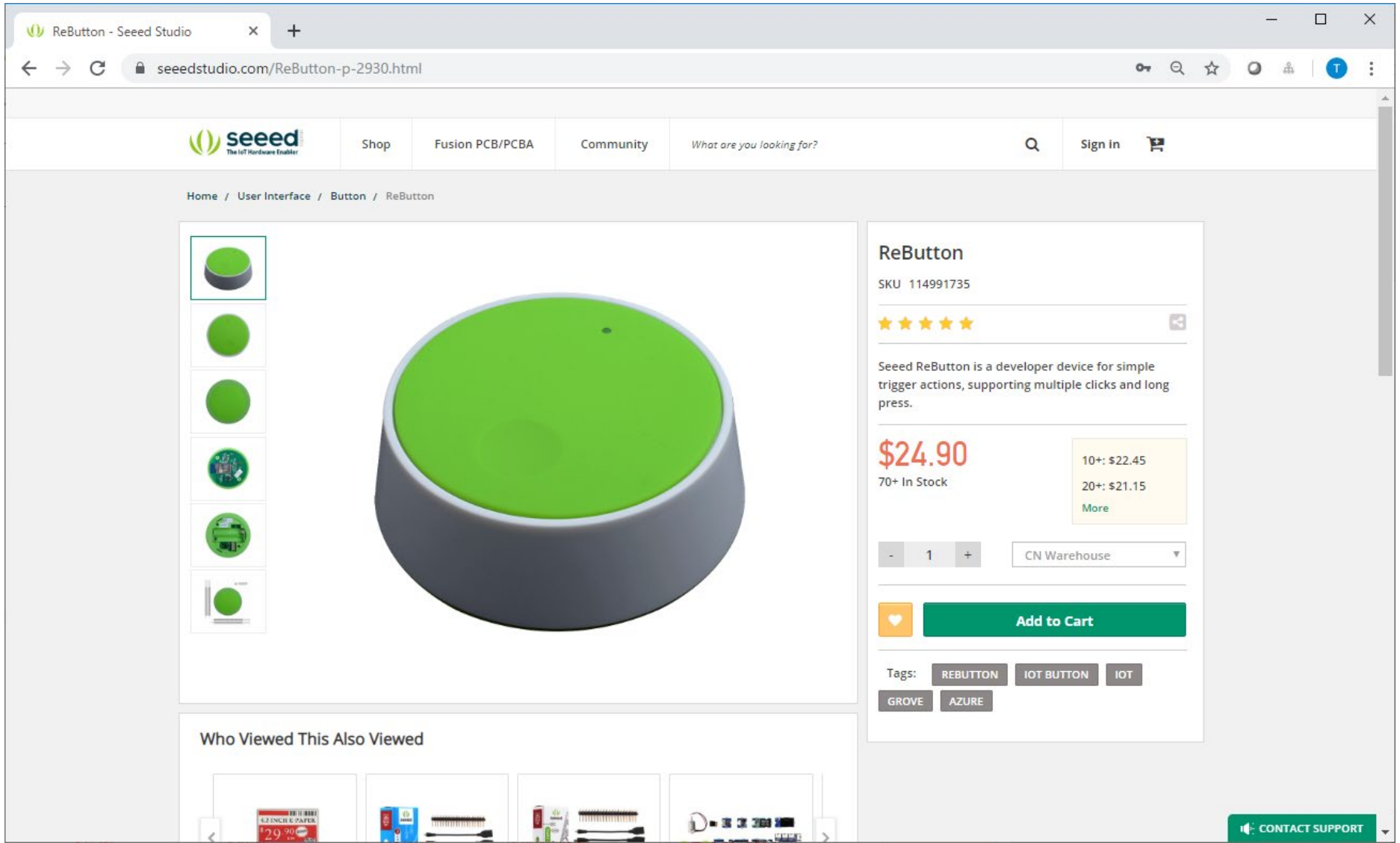
https://twitter.com/SeeedJP/status/1051771382835634177

グローバル

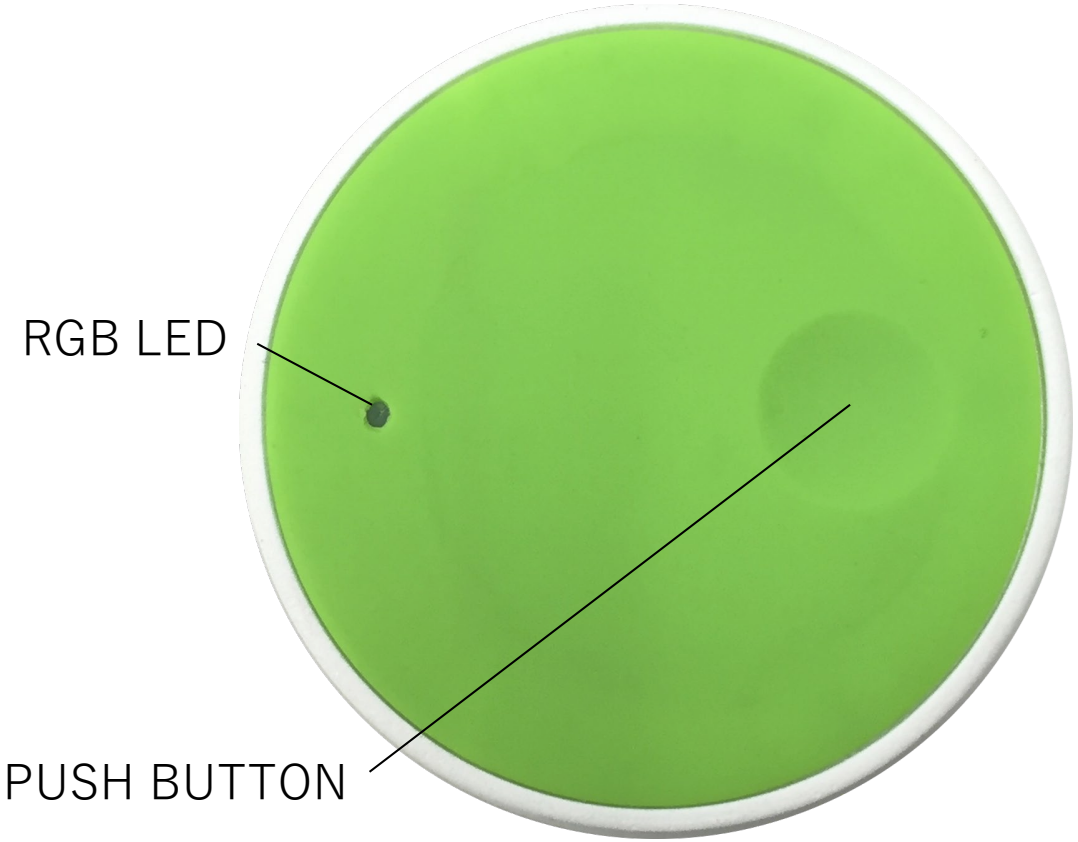

CE 0700
FCCID:P53-EMW3166
M/N:EMW3166-P
04786300C996
1716
Linked by MXCHIP

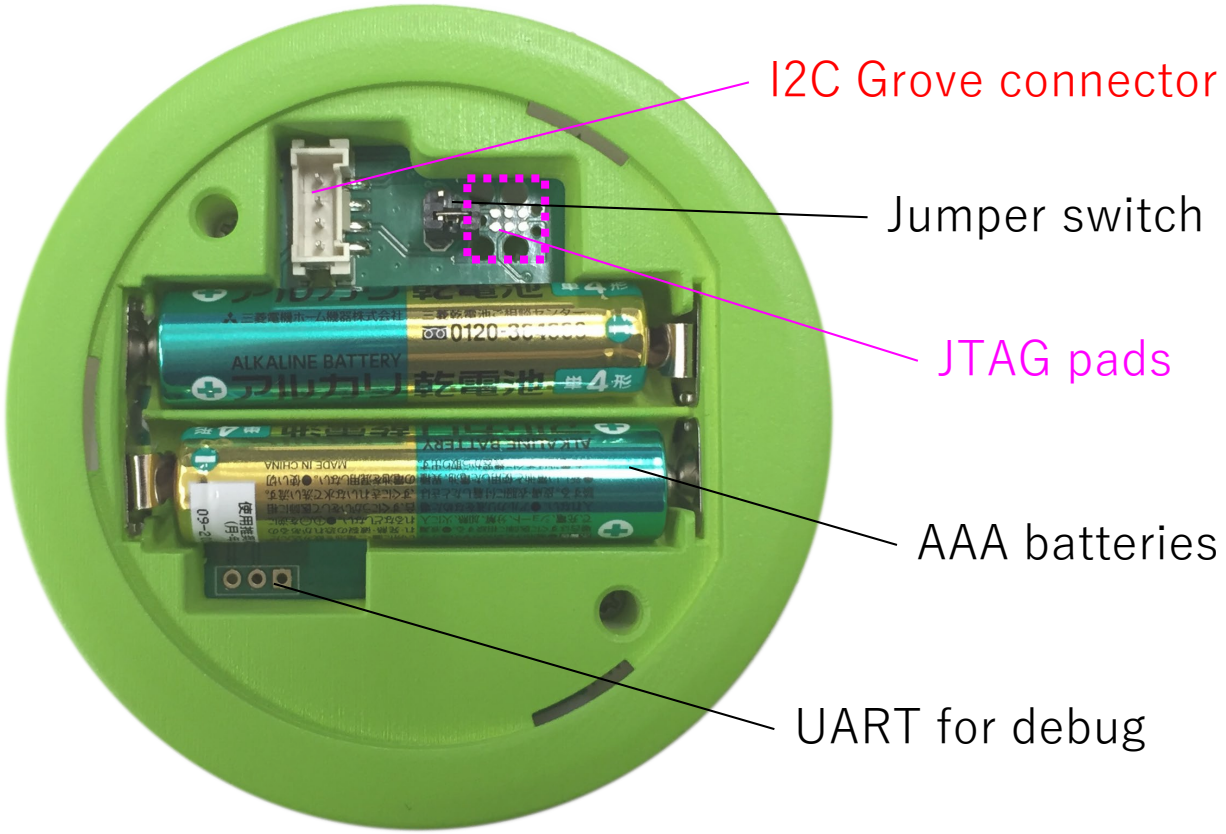

CE
MXCHIP®
M/N:EMW3166-P
1902
Linked by MXCHIP

グローバル

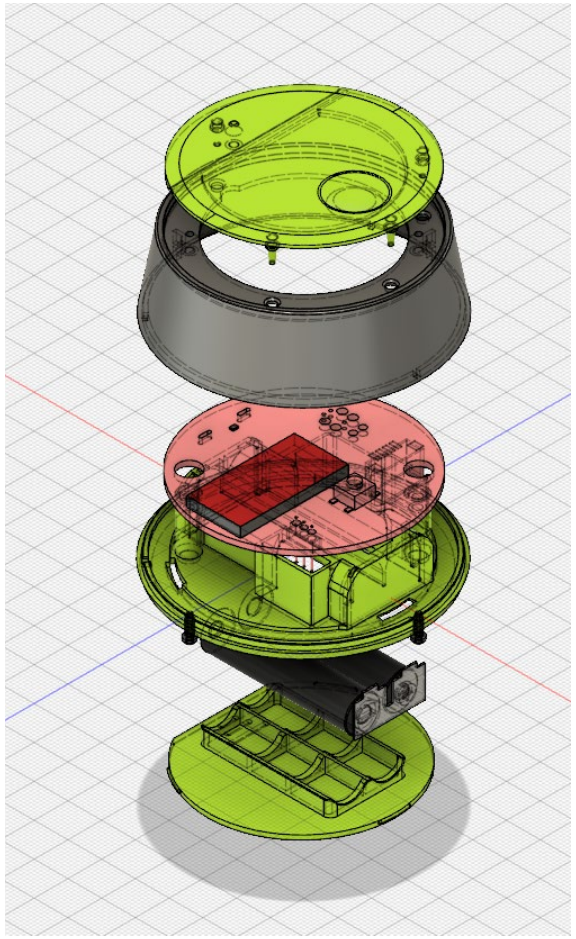

ReButton - Seeed Studio
seeedstudio.com/ReButton-p-2930.html
seeed
Shop
Fusion PCB/PCBA
Community
What are you looking for?
Sign in
Home / User Interface / Button / ReButton
ReButton
SKU 114991735
Seeed ReButton is a developer device for simple trigger actions, supporting multiple clicks and long press.
$24.90
70+ In Stock
10+: $22.45
20+: $21.15
More
1
CN Warehouse
Add to Cart
Tags:
REBUTTON
IOT BUTTON
IOT
GROVE
AZURE
Who Viewed This Also Viewed
CONTACT SUPPORT

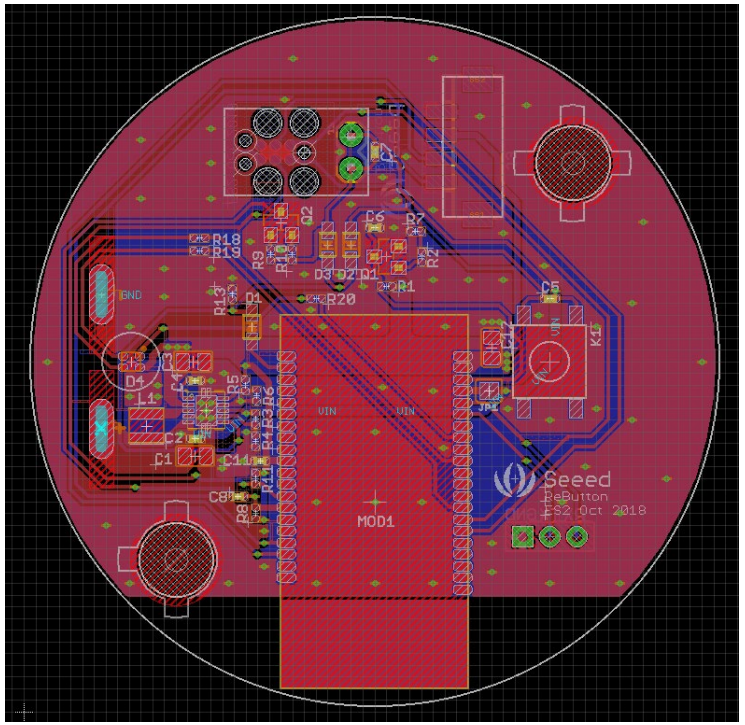
カスタマイズ－ハードウェア

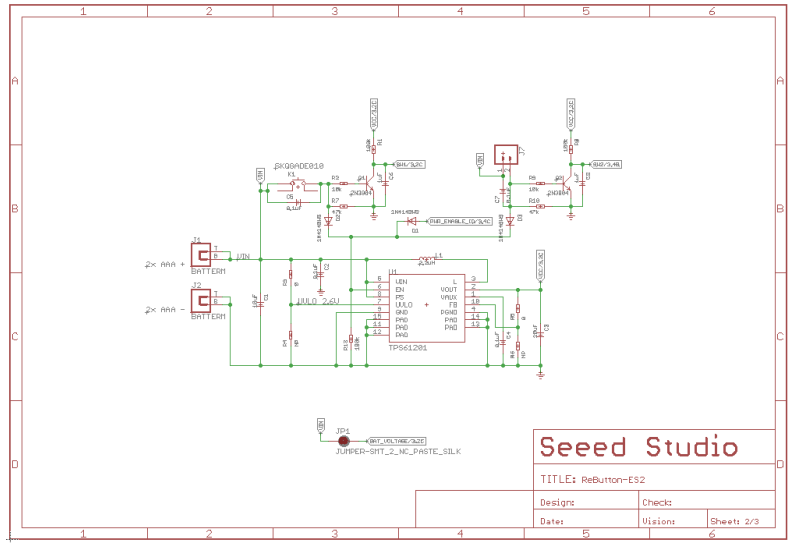


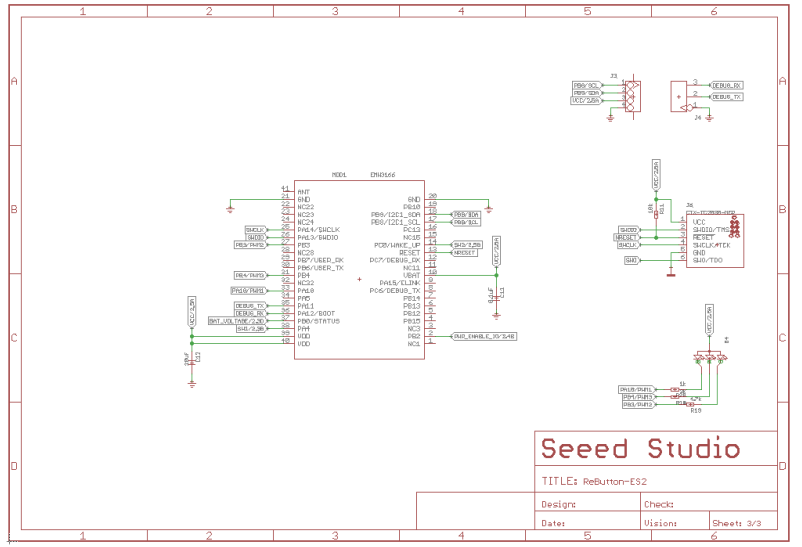


カスタマイズ – ハードウェア









https://github.com/SeeedJP/ReButton/tree/master/mechanicals

https://github.com/SeeedJP/ReButton/tree/master/electronics

カスタマイズ－ソフトウェア

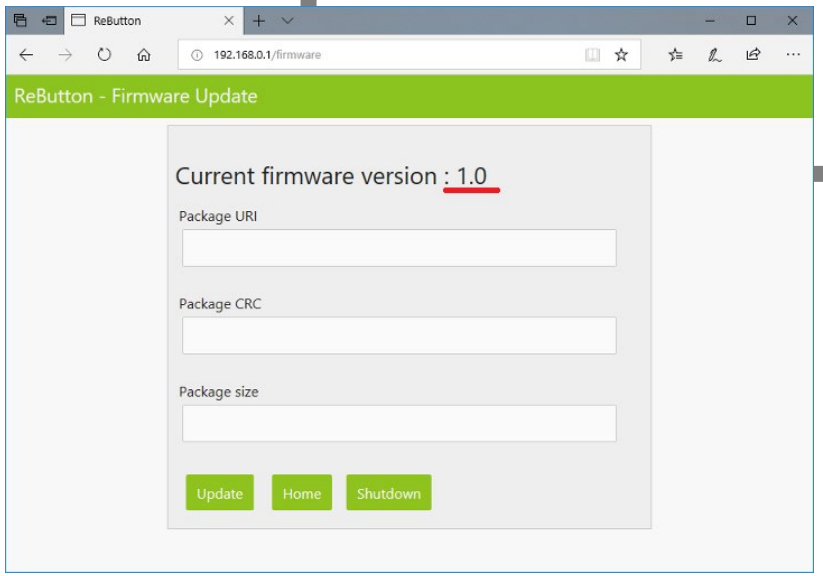
Image

Image

ReButton

Debug Adapter

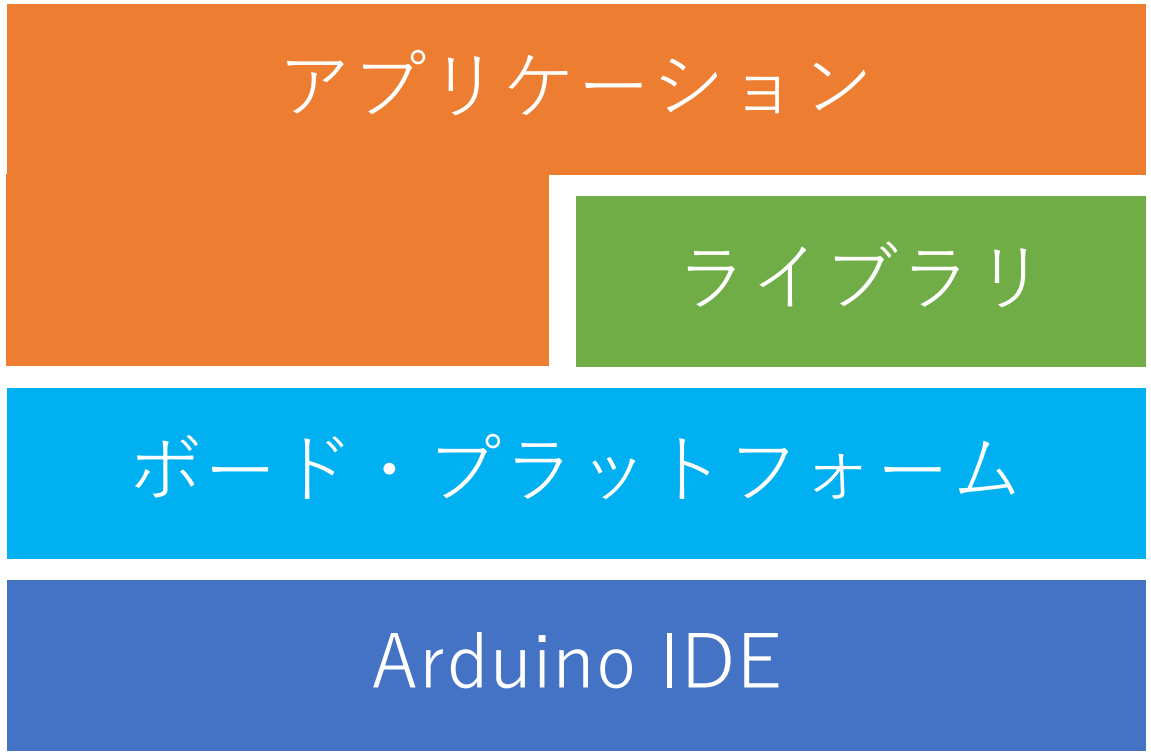
PC



Image

Azure Storage

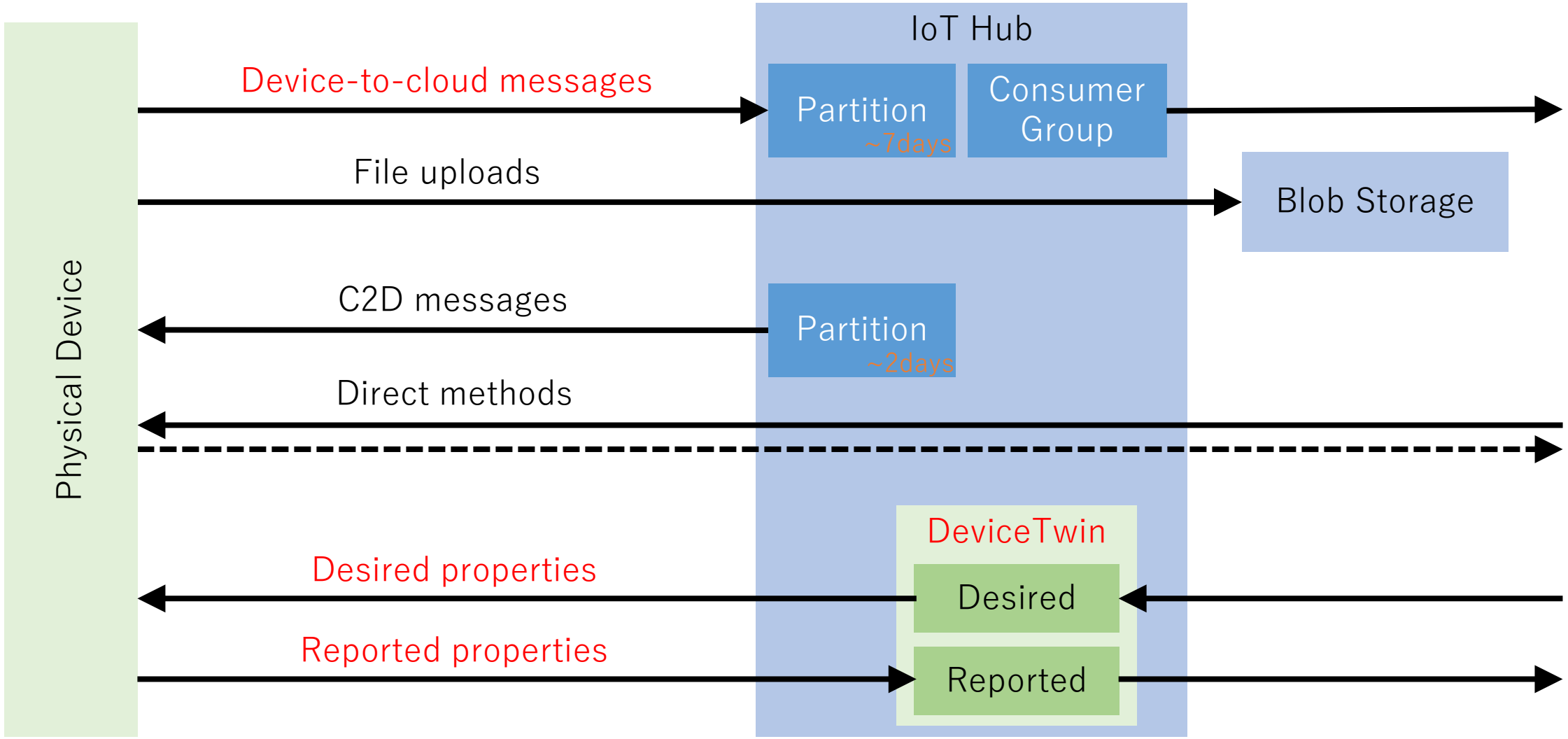
カスタマイズ – ソフトウェア



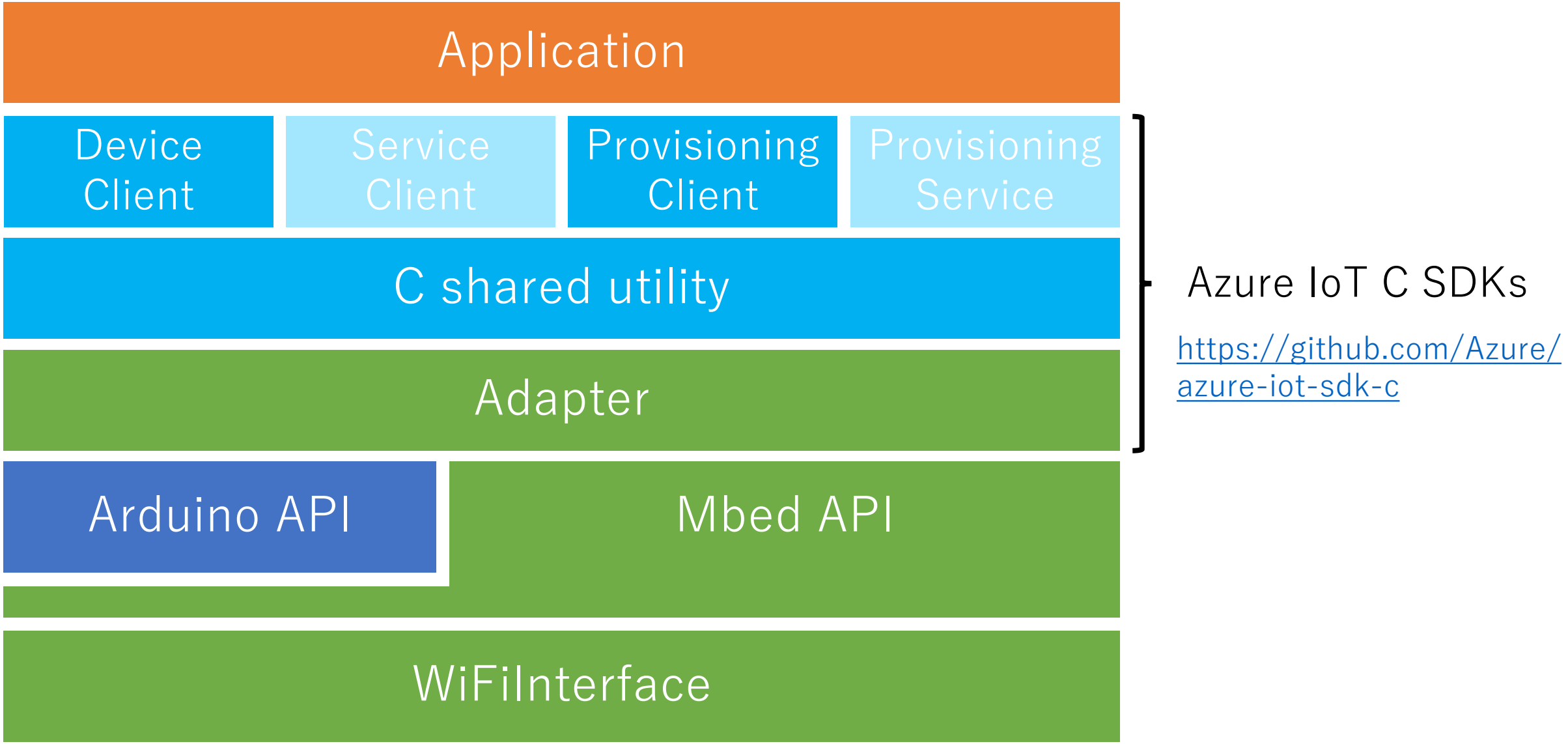
ReButtonApp
https://github.com/SeeedJP/ReButtonApp

SeeedJP ReButton by Seeed K.K.
https://github.com/SeeedJP/ReButtonArduinoPlatform

Communicate a Device and Azure IoT Hub



Azure IoT SDK in ReButton



Azure IoT Device Client API

IoT Hub接続先を指定：

```
IoTHubClient_LL_CreateFromConnectionString()
```

```
ConnectionStateCallbackFunc
```

D2Cメッセージを送信：

```
IoTHubMessage_CreateFromByteArray()
IoTHubClient_LL_SendEventAsync()
```

→

```
SendEventCallback
```

DeviceTwinのReportedを変更：

```
IoTHubClient_LL_SendReportedState()
```

→

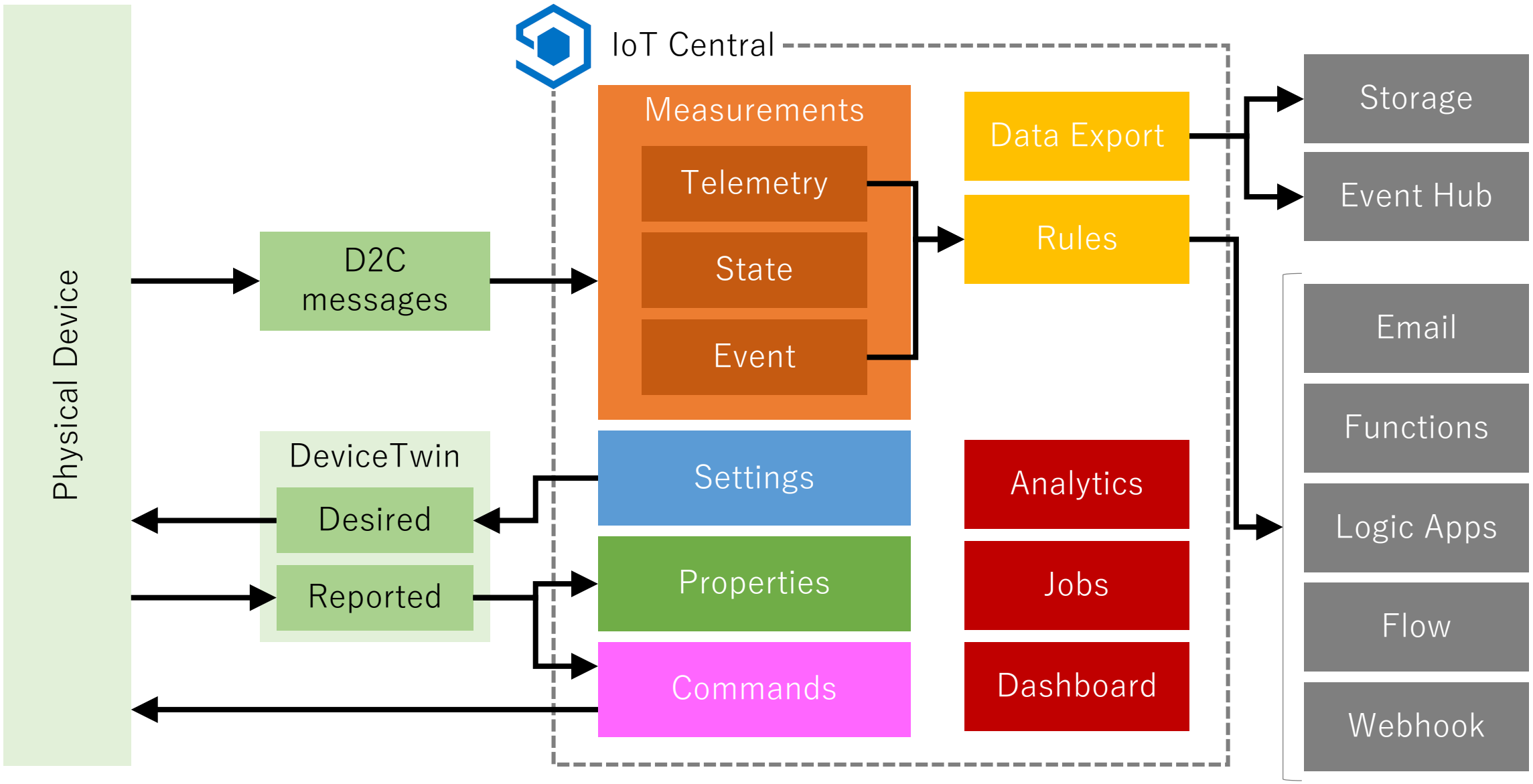
```
DeviceTwinReportCallbackFunc
```

DeviceTwinのDesiredの変更通知を受ける：

```
IoTHubClient_LL_SetDeviceTwinCallback()
```

```
DeviceTwinCallbackFunc
```

https://github.com/SeeedJP/ReButtonApp/blob/master/ReButtonClient.cpp


Physical Device
IoT Central
D2C messages
Measurements
Telemetry
State
Event
DeviceTwin
Desired
Reported
Settings
Properties
Commands
Data Export
Rules
Analytics
Jobs
Dashboard
Storage
Event Hub
Email
Functions
Logic Apps
Flow
Webhook

ReButton and IoTC Configuration

ReButton Configuration:

Wi-Fi

- ✓ SSID / Passphrase

IoT Central

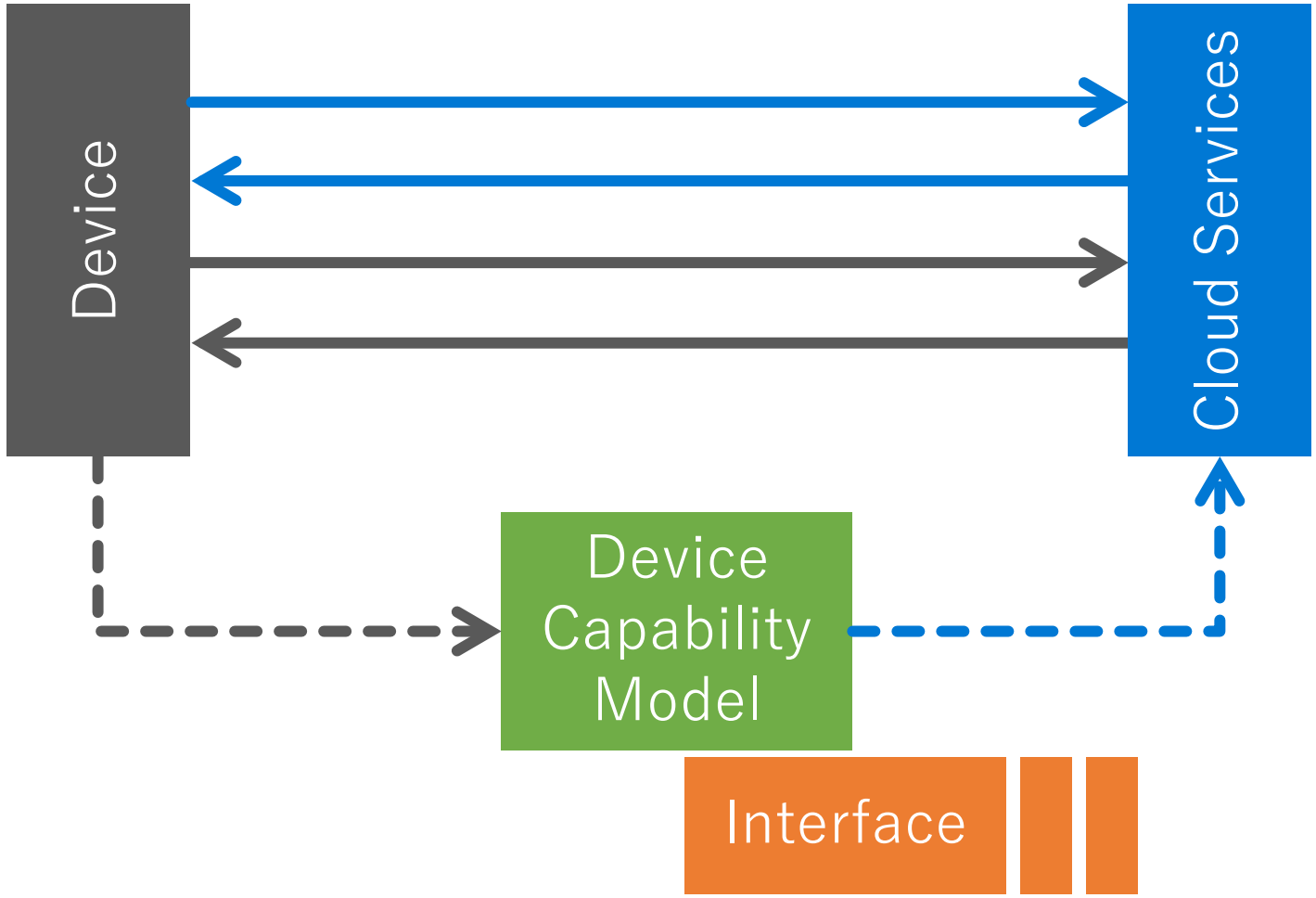
- ✓ Scope ID
- ✓ Device ID
- ✓ SAS Key

IoT Central Configuration:

- ✓ Create device template
- ✓ Add telemetry/state/event
- ✓ Add real device
- ✓ Copy Scope ID/Device ID/SAS Key

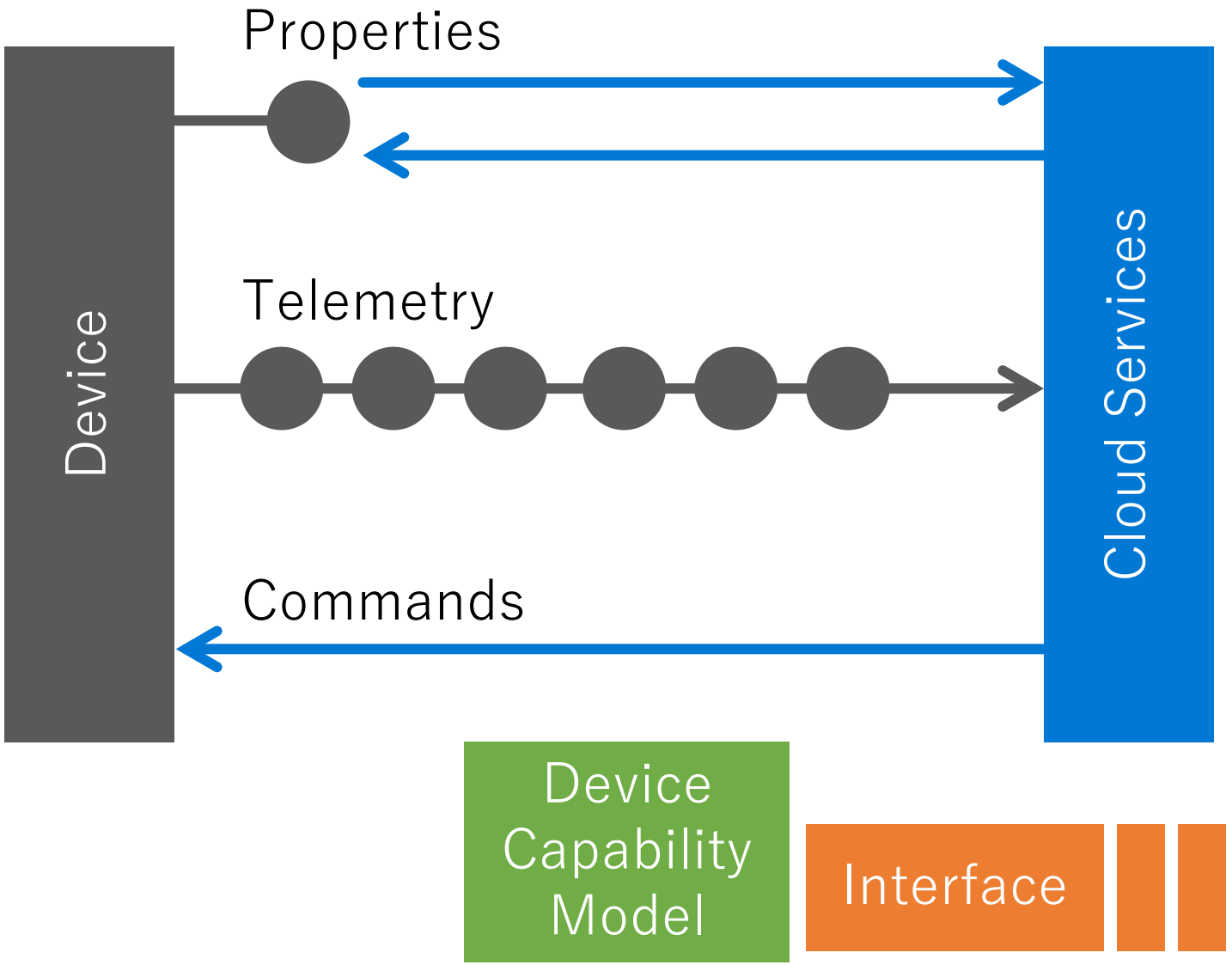
PREVIEW

IoT Plug and Play Overview



PREVIEW

IoT Plug and Play Contents



Takashi Matsuoka
9月3日 16:03

ReButton、IoT Plug and PlayのPre-certified取れました。
（IoT Plug and Play、チョットデキルようになった）

PREVIEW

DEMO: IoT Plug and Play

まとめ

ReButton:

- ✓ Azure IoTを体験する最も簡単なデバイス
- ✓ カスタマイズ可能

Azure IoT Central / Azure IoT Hub:

- ✓ 体験はIoT Central、デバイス開発はIoT Hub

デバイス開発:

- ✓ Azure IoT SDK
- ✓ IoT Plug and Play