Getting Started with Agora and Mbed OS

June 29, 2020

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With <u>Mbed OS</u>, ARM has gone to great lengths to make developing IoT-focused applications as painless as possible and has built in support for, among other functionalities, networking and BLE. From a getting-started example application perspective, Embedded Planet recommends the following examples:

- <u>mbed-os-example-blinky</u>: Simple getting-started application that just blinks an LED
- <u>mbed-os-example-ble</u>: Collection of BLE-focused examples which has support for our board (EP_AGORA) out of the box.
- <u>mbed-os-example-cellular</u>: Simple cellular-based networking example that also has support for our board (EP_AGORA) out of the box. This example utilizes an "echo" server that ARM has set up to relay back packets sent over UDP or TCP to verify cellular connectivity at a basic level.
- <u>mbed-os-example-pelion</u>: Simple example application which demonstrates connectivity to ARM's <u>Pelion Device Management</u> solution and has built-in support for our board (EP_AGORA). This example supports:
 - o Securely connecting to the Pelion servers via cellular
 - Sending data up to the Pelion servers
 - Sending commands down to the device from the Pelion portal
 - Triggering secure firmware updates down to the device
- Azure IoT Hub example: Uses MQTT over TLS to securely connect to Microsoft's Azure IoT Hub
- MOTT example: MOTT, MOTT-SN library
- HTTP/HTTPS example: Examples for performing HTTP(S) POSTs, PUTs, GETs, .etc.
- CoAP example: CoAP client application

ARM also provides an IDE called <u>Mbed Studio</u> which supports debugging and comes with ARM's AC6 compiler. If you'd like to have more granular control of the build process or export a project to an IDE you're more comfortable with, there's also support for the <u>Mbed CLI tools</u>.