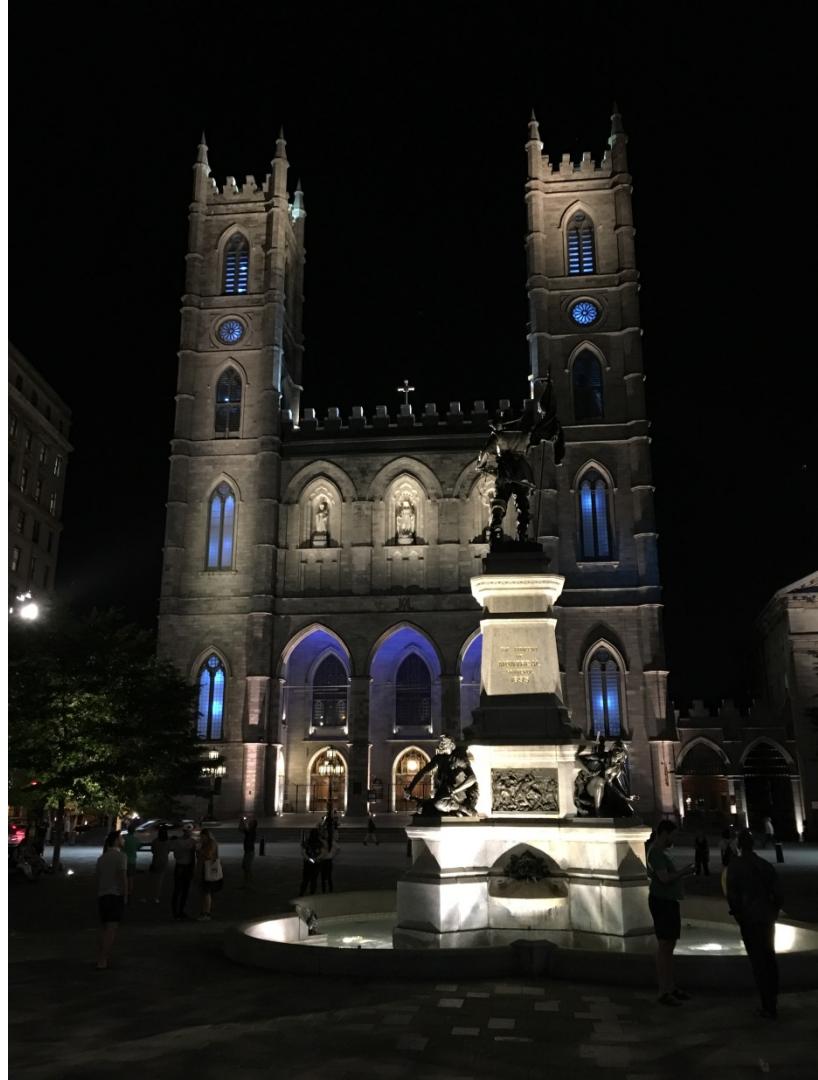


IETF Hackathon: Software Updates for IoT (SUIT)

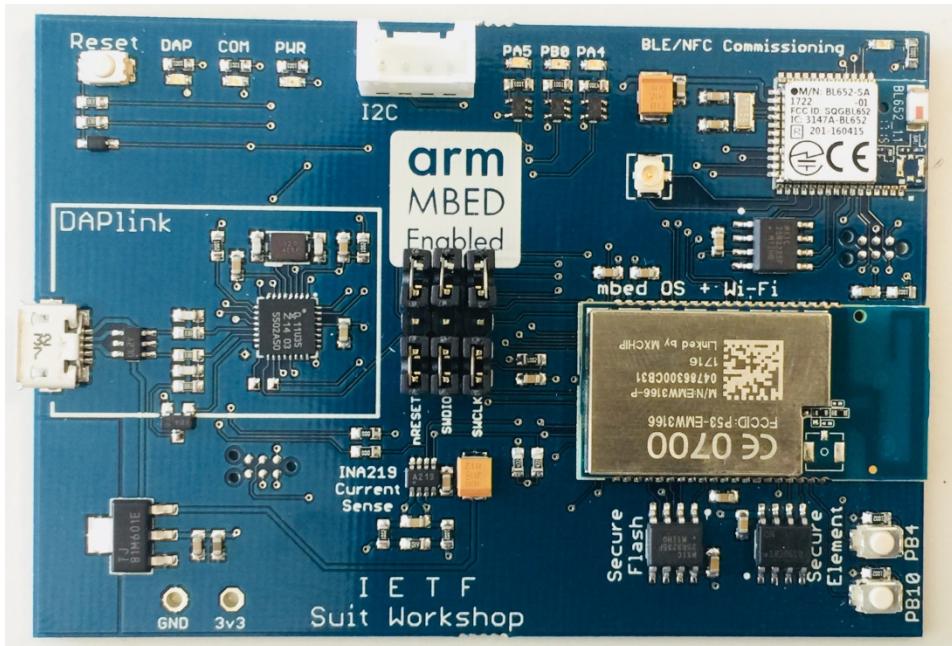
IETF 102
14-15 July, 2018
Montreal



Hackathon Plan

Software Updates for IoT

- Generate a manifest
- Encode it in CBOR
- Sign it with COSE
- Verify it on a SUIT prototyping board.



The Group

Team:

- Hannes Tschofenig
- Jaime Jiménez
- Felipe Espinoza
- Alexandra Ibarra
- Thomas Fossatti
- Bill Silverajan
- David Waltermire
- Laurence Lundblade



1st time IETF



1st time SUIT Hackathon



What got done

1. Set up development environment for use with new board on multiple OSs. Mbed OS was used as an IoT operating system.
2. Generate the manifest
3. Encode it
4. Sign it
5. Verify it on the device

Detailed write-up available at <https://git.io/fNYC6>

What we learned

- Making setup for 1st time users easier would be good. A preconfigured environment would be good.
- We need to use IDEs for debugging (e.g., Keil uVision 5) → example project or software packs
- New development board works but we bricked 3 boards (potential issue on Macs).
- Getting to a small codesize for the bootloader will be difficult with CBOR and COSE.
- Parsing of CBOR encoded manifest is not straightforward.
- Manifest could use map instead of array for simpler parsing.