



IETF Hackathon TieDie

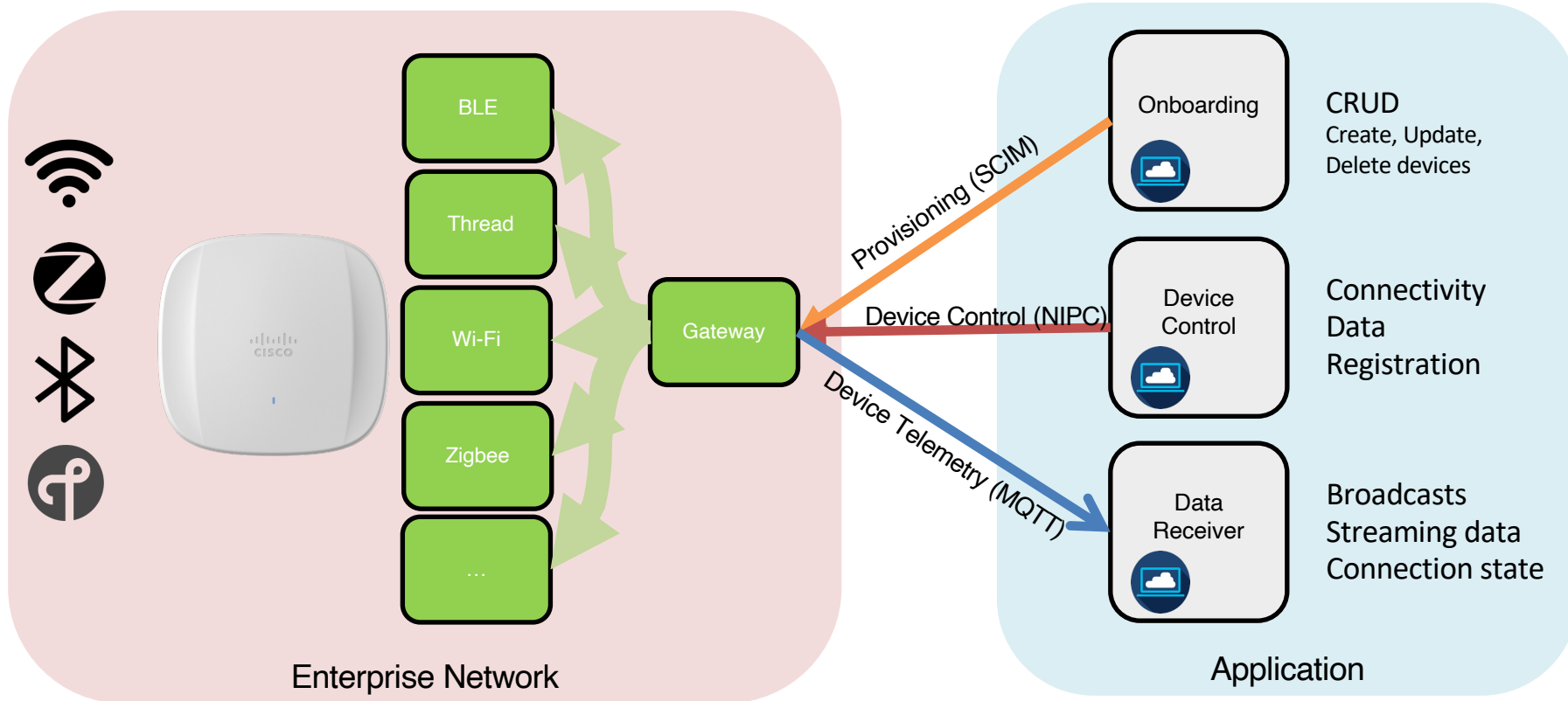
**IETF 118
4–5 November 2023
Prague, Czech Republic**



Hackathon Plan

- IoT onboarding and communication with Non-IP devices (BLE)
 - Drafts:
 - SCIM for devices: <https://datatracker.ietf.org/doc/draft-ietf-scim-device-model/>
 - Non-IP Control (NIPC): <https://datatracker.ietf.org/doc/html/draft-brinckman-nipc/>
- Problem to solve:
 - Test and improve TieDie open source implementation
 - Build an application that monitors room environmentals with BLE enabled sensors.
 - Verify behavior in in a challenging RF environment!
 - Improve TieDie open-source project code + CI/CD

How did we go about it



What got done

- Got a BLE network up and running leveraging the open-source code and as well as Cisco implementation
- Figured out how to handle noisy environments more reliably
- Code improvements and CI/CD: <https://github.com/iot-onboarding/tiedie>
- Webapp that monitors room environmentals as a demo using NIPC APIs

[BLE Device App](#) [Devices](#) [Subscriptions](#)

Device Information

Connected

Device ID	fbfb524f-2ae2-434f-bc7f-dfcf456af5fd
Device Display Name	Thunderboard
Device MAC Address	84:FD:27:E6:5E:D4
Device Pass Key	0
Device Version Support	[4.2, 5.0, 5.1]

Disconnect

Temperature 26.88 °C	UV Index 0
Pressure 963.199 mbar	Humidity 30.62 %
Sound level 67.43 dB	Ambient Light 278.33 lux

What we got out of the hackathon

- A wonderful noisy environment in which to test

Wrap Up

Team members:

- Eliot Lear
- Rohit Mohan
- Bart Brinckman

First timers @ IETF/Hackathon:

- Rohit Mohan
- Bart Brinckman

<https://github.com/iot-onboarding/tiedie>