prplMesh:
Open-source Implementation of the spec underlying Wi-Fi CERTIFIED EasyMesh™

Arnout Vandecappelle
Essensium/Mind

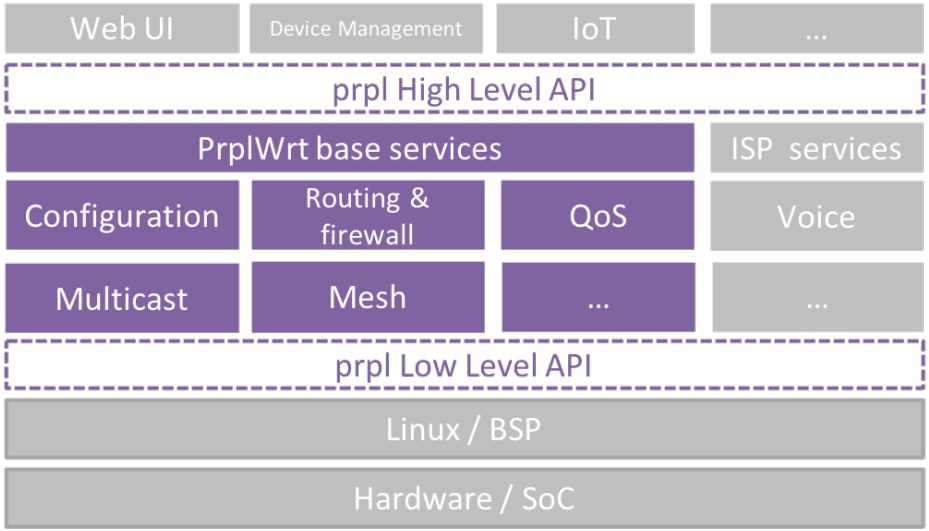
arnout.vandecappelle@essensium.com

Overview

- prpl implementation for Wi-Fi CERTIFIED EasyMesh™
- Security and missing features
- prplMesh architecture

prpl combines standardisation & open source

- High-level API
  A single API for on-device software
- Low-level API
  A single API for chipsets and SoCs



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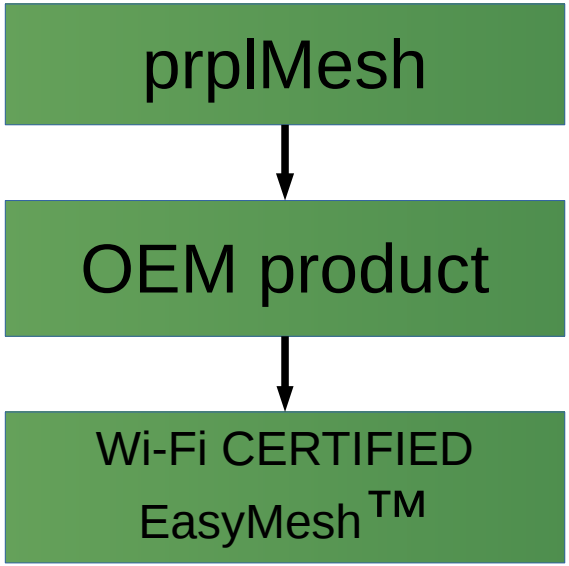
Path to certification



prplMesh Multi-AP implementation

- Open source reference implementation for Linux
- *Agent* ready for Wi-Fi CERTIFIED EasyMesh™
- *Controller* as differentiator
- Match with prpl APIs, add carrier manageability
- Contracted Essensium/Mind for implementation

https://github.com/prplfoundation/prplMesh

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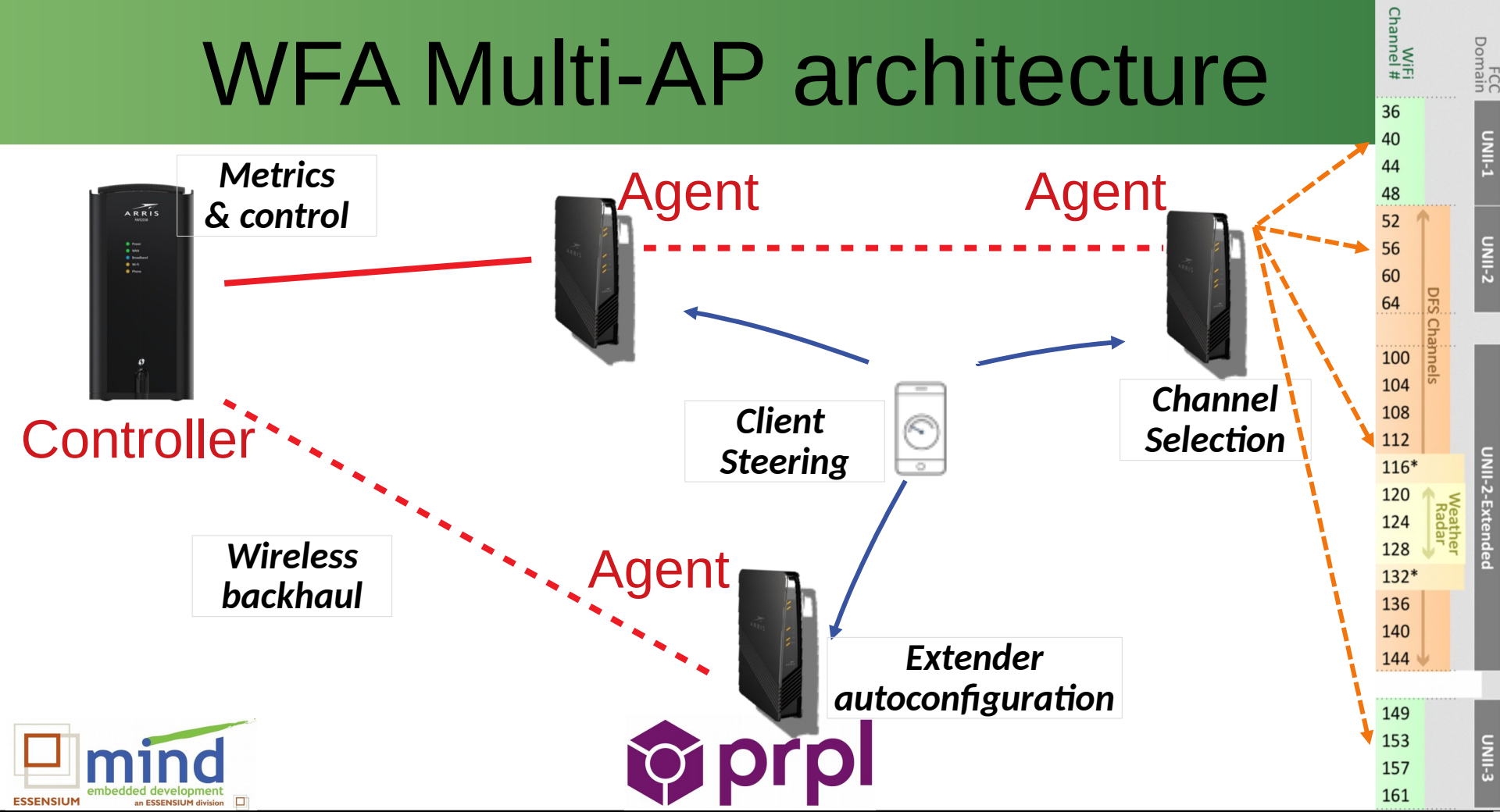
BroadBand Forum and Multi-AP

- Delivers IEEE 1905.1a stack
  https://github.com/BroadbandForum/1905.1a
- Define architecture and interface for carrier management
  - QoS
  - metrics acquisition for diagnostics
  - ...
- Define additional test plans

WFA Multi-AP architecture



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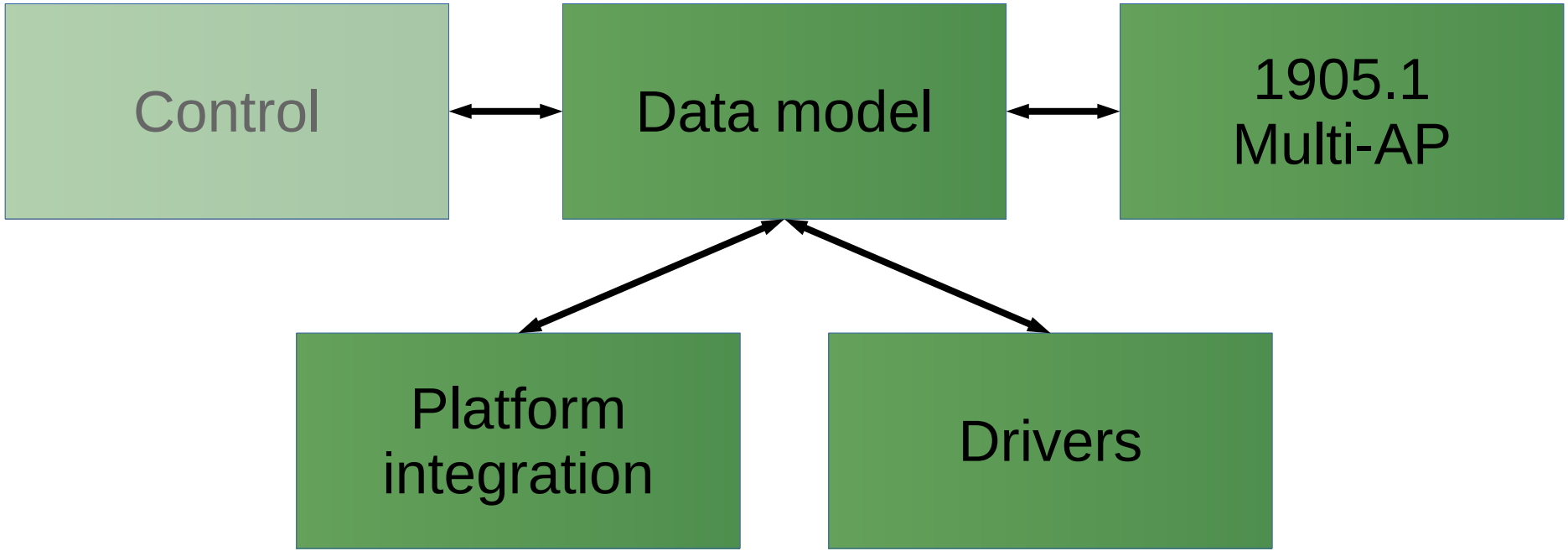
Security

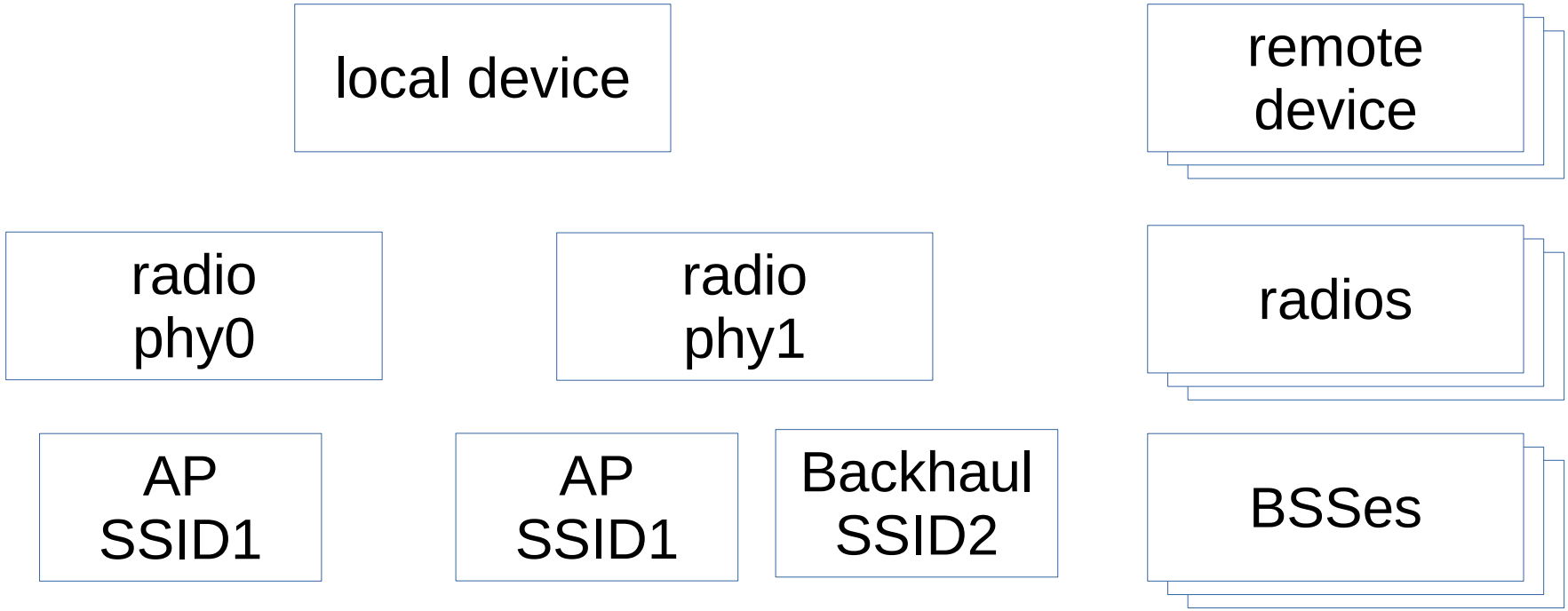
Multi-AP messaging is protected against out-of-network eavesdropping through utilization of encryption feature(s) of its underlying network connectivity.

A Multi-AP interface is considered authenticated when the underlying networking technology encryption mode has been successfully configured.

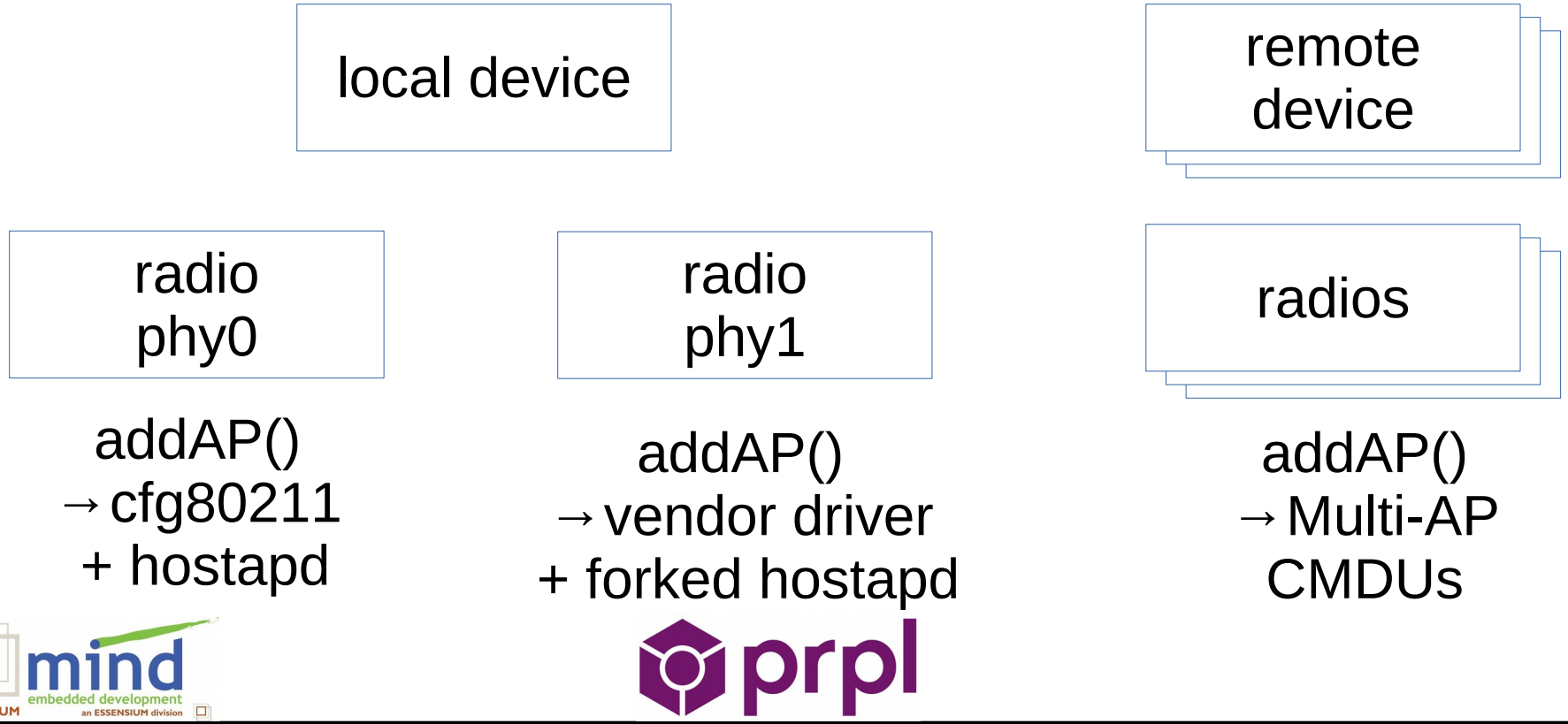
prplMesh architecture



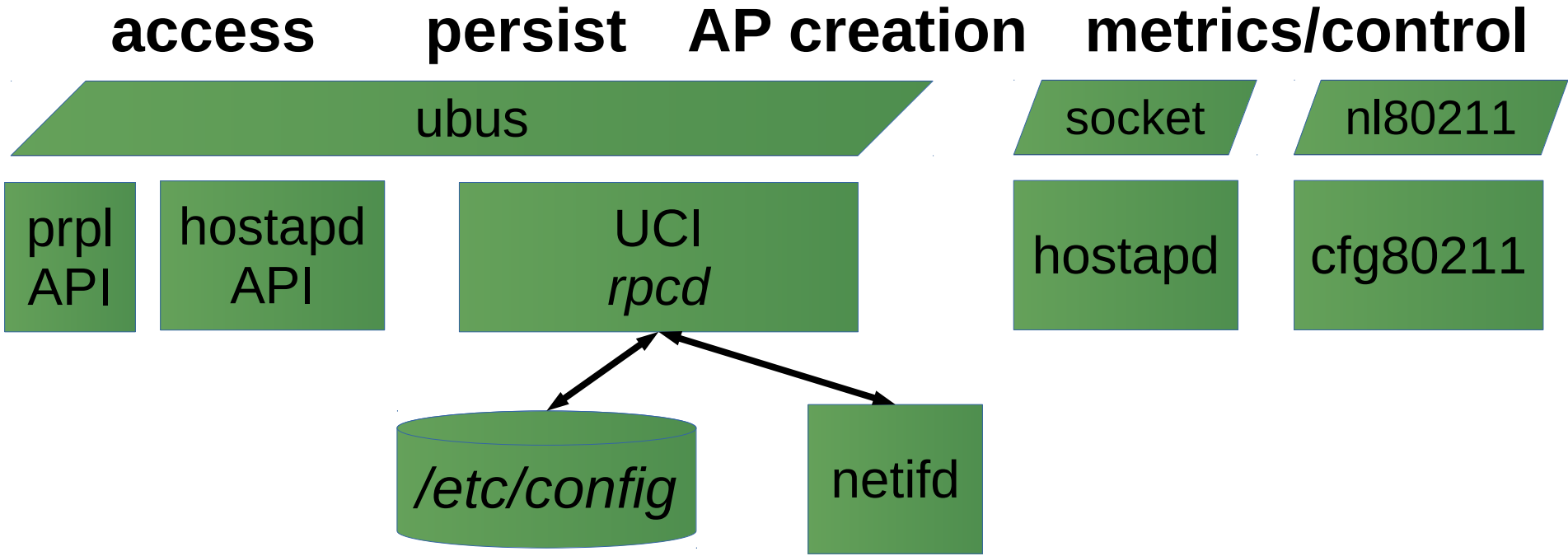
prplMesh Data Model



prplMesh Data Model



OpenWRT platform integration



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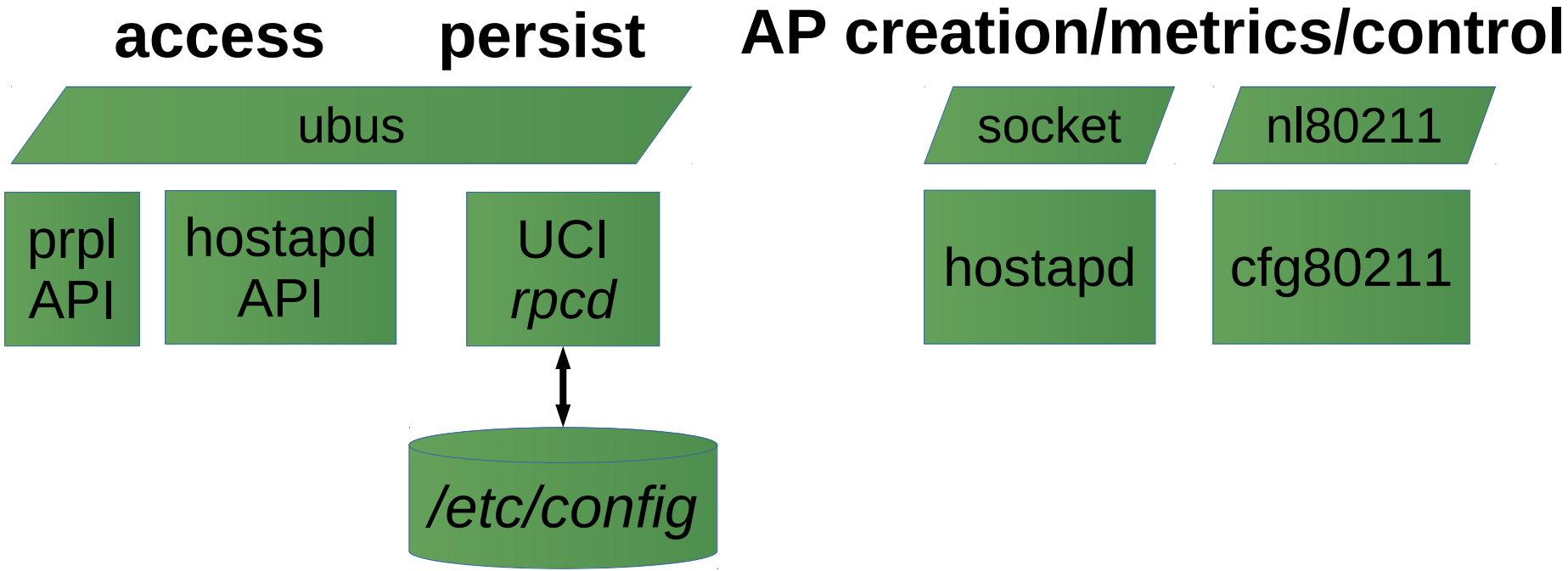
Stretch goal: unified AP interface



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Conclusions

- Open source implementation of MultiAP is desired
- Opportunity for single Wi-Fi daemon in router