DHCPv6 for RIOT @ IETF 101 hackathon

Martine Lenders (m.lenders@fu-berlin.de)
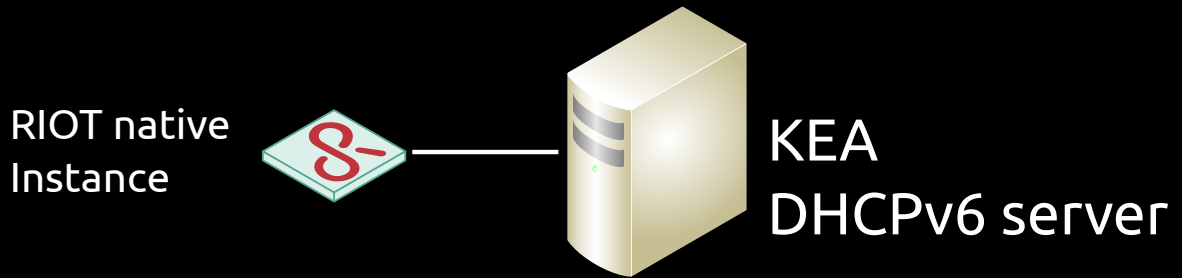
https://riot-os.org

Goals

- Provide minimal implementation for prefix delegation for RIOT (IoT OS)
- Basis: draft-ietf-dhc-rfc3315bis-12
- Motivation:
  - prefix configuration on 6Lo border router (currently implemented as quick-fix hack "UHCP")
- Required client behavior for:
  - SOLICIT, ADVERTISE, REQUEST, REPLY, RENEW

Set-up

Very simple set-up:

RIOT native
Instance

KEA
DHCPv6 server

(RIOT native == Run RIOT as a Linux process)

What did we manage to do?

- SOLICIT ✔ , ADVERTISE ✔ , REQUEST ✔

Lessons learned

- Don't get lost in details
- When in doubt: ask the draft's authors ;-) (thanks Tomek for all the help)

Further steps

- Clean-up implementation
- Finish implementation of prefix delegation
- Provide support for further DHCPv6 features
- Current code already PR'd to RIOT:
  https://github.com/RIOT-OS/RIOT/pull/8796/