

Dagstuhl17 Hackathon

ICNLoWPAN



Cenk Gündoğan (HAW Hamburg)

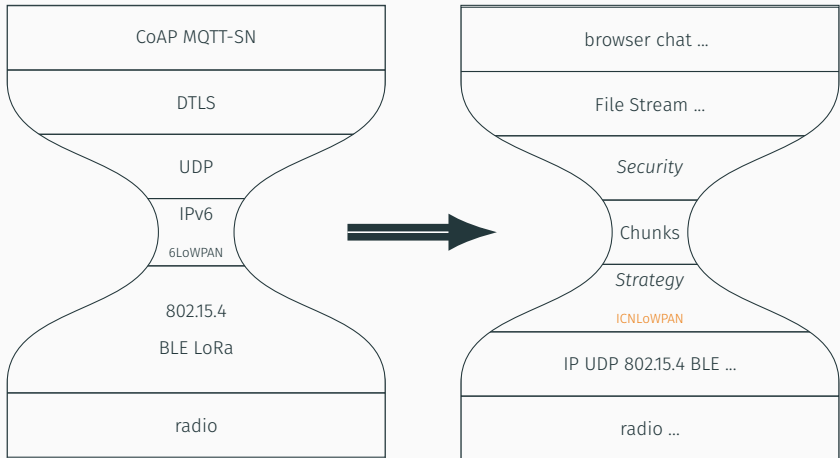
Balazs Faludi (UNIBAS)

Claudio Marxer (UNIBAS)

Christoper Scherb (UNIBAS)

July 26, 2017

Hackathon



Project: ICN Conversion Layer for IEEE 802.15.4

- Hop-by-Hop conversion
- NDN Interest / Data packet header compression
- Name Compression

Interest

Name
Selectors (order preference, publisher filter, exclude filter, ...)
Nonce
Guiders (scope, Interest lifetime)

Data

Name
MetaInfo (content type, freshness period, ...)
Content
Signature (signature type, key locator, signature bits, ...)



Current State

- Successful integration of CCN-litev2 in RIOT
- Minimal prototype implementation in CCN-lite
- Name Compression for `/prague/ietf/99`
 - 20 byte in NDN → 12 byte compressed
- Simple NDN Interest (minimal case)
 - 28 byte → 14 byte (50% compression)



- Conversion Layer for 802.15.4 and NDN packet format
- Look into existing fragmentation work



Questions?

