

Dagstuhl17 Hackathon

ICNLoWPAN



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Header Compression

Compression Header

- 1 Bit: 0/1 for Interest / Data
- 1 Bit: MinSuffixComponents
- 1 Bit: MaxSuffixComponents
- 1 Bit: PublisherPublicKeyLocator
- 1 Bit: Exclude
- 1 Bit: ChildSelector
- 1 Bit: MustBeFresh
- 1 Bit: InterestLifetime

Type

$T[I]$ or $T[D]$

Name

$TL[TL[C_1]TL[C_2]\dots TL[C_n]] \Rightarrow$

$TL[C_1/C_2/\dots/C_n] \Rightarrow C_1/C_2/\dots/C_n\$$

Selectors

Selectors ::= STYPE TLV-LEN

MinSuffixComponents? MaxSuffixComponents?
PublisherPublicKeyLocator? Exclude?
ChildSelector? MustBeFresh?

Nonce

4 bytes \Rightarrow 2 bytes \Rightarrow 0 bytes ?

InterestLifetime

2-4 bytes \Rightarrow 1 byte



Achievements

CCN-lite v2

- Port to RIOT
- fixed compiler and linker errors
- provided doxygen documentation

NDN Conversion Layer for LoWPANs

- Integration into CCN-lite
- Name compression scheme implemented
- Header compression scheme (only on paper)

Wireshark

- Initial plugin for NDNLoWPAN
- Parse Compression Header

