

IEEE 802.15.4w update

Charles E. Perkins

July 19, 2018

SCHC for 802.15.4w

- draft-authors-lpwan-schc-802154-00 submitted Monday evening
- Not an official IEEE 802.15.4w publication, but a result of interest from the task group
- Written from perspective of using native 802.15.4 fragmentation, so SCHC parameters are not needed.
- Could become a work item within SC IETF

SCHC Parameters specified

- Size of the Rule ID = 3
- Use of Padding to byte boundaries
- L2 CRC – either 16 or 32, but 32-bit preferred
- Fragmentation at layer-2 – not needed:
 - Fragmentation Delivery Reliability Option
 - Fragmentation ACK Parameters
 - MAX_ACK_REQUEST
 - FCN
 - DTag
- <https://mailarchive.ietf.org/arch/msg/lp-wan/SexnleQwBTL7XZ9-hC2h7tp79KU>

Other 802.15.4w status

- 4 MAC layer proposals & 2 PHY layer proposals received for improving 802.15.4 to meet the needs of LPWA use cases
 - LDPC (Low Density Parity Check) for LPWA / Sony
 - Scalable Multiple Access Frame Structure / KAIST
 - MAC Proposal for 802.15.4w Standard / KAIST, ETRI
 - TSMA preview for 802.15.4w / Fraunhofer IIS
 - Single-hop LPWA Repeater for Harsh Environment
 - Priority-Based CSMA/CA for LPWA