

Status of SCHC-over-Sigfox

Authors:

JC. Zuniga <juzuniga@ieee.org>
C. Gomez <carlesgo@entel.upc.edu>
S. Aguilar <sergio.aguilar.romero@upc.edu>
L. Toutain <laurent.toutain@imt-atlantique.fr>
S. Cespedes <sandra.cespedes@concordia.ca>
D. Wistuba <wistuba@niclabs.cl>
J. Boite <julien.boite@sigfox.com>

Shepherd review

- Thanks to Ana Minaburo (Shepherd)
- Main changes in version 11

Shepherd review

- Changes in Introduction and Abstract
- Changed RG for RGW
- Changed UL and DL for Uplink and Downlink
- Changed “the predictability of data flows” to “previous knowledge of traffic flows”
- Added legend in Fig. 1 for symbols

Shepherd Review

- Conforms with Appendix F RFC8724
- Added text:
 - “It is RECOMMENDED for the fragment receiver to send an uplink transmission (e.g., empty message) and request a downlink every 24 hours when no SCHC session is started. The use or not of this uplink transmission will depend on application specific requirements.”

Shepherd review

- Changed flows to packets as per RFC8724
- Added text related to App and downlink messages
- Regarding DTag and Rule IDs:
 - A three bit Rule ID field allows to interleave at most eight SCHC transmissions for the same device (depending on the configuration).
- Added Recommend values for Inactivity and Retransmission Timers

Shepherd review

- Regarding RCS:
 - Sigfox provides a CRC check at the L2 layer for each SCHC Fragment. As each SCHC Fragment is only delivered to the Network SCHC after the Sigfox CRC is correct, the complete SCHC Packet integrity is considered to be correct.
 - The RCS field is used to carry the number of tiles of the last window.
 - This is explained in section 3.6.1.3.