

SCHC over Sigfox

draft-zuniga-lpwan-schc-over-sigfox-03

draft update and discussion about ACK-on-Error mode

Authors:

Juan Carlos Zuniga <juancarlos.zuniga@sigfox.com>
Carles Gomez Montenegro <carlesgo@entel.upc.edu>
Laurent Toutain <laurent.toutain@imt-atlantique.fr>

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- Network architecture
 - Equivalences
- Added more details about
 - SCHC Rules parameters and usage
 - Fragmentation parameters (e.g. Values, Timers)
- Clarifications and some operation details on different fragmentation modes still needed on baseline SCHC draft
 - (Next slides)

No-ACK

The baseline SCHC draft assumes FCN=1-bit (e.g. N=1) for the No-ACK mode.

Proposal: relax/clarify the specification so that $N > 1$ is clearly allowed.

For the SCHC over Sigfox draft we see value in using $N > 1$ for the No-ACK mode.

ACK-on-Error

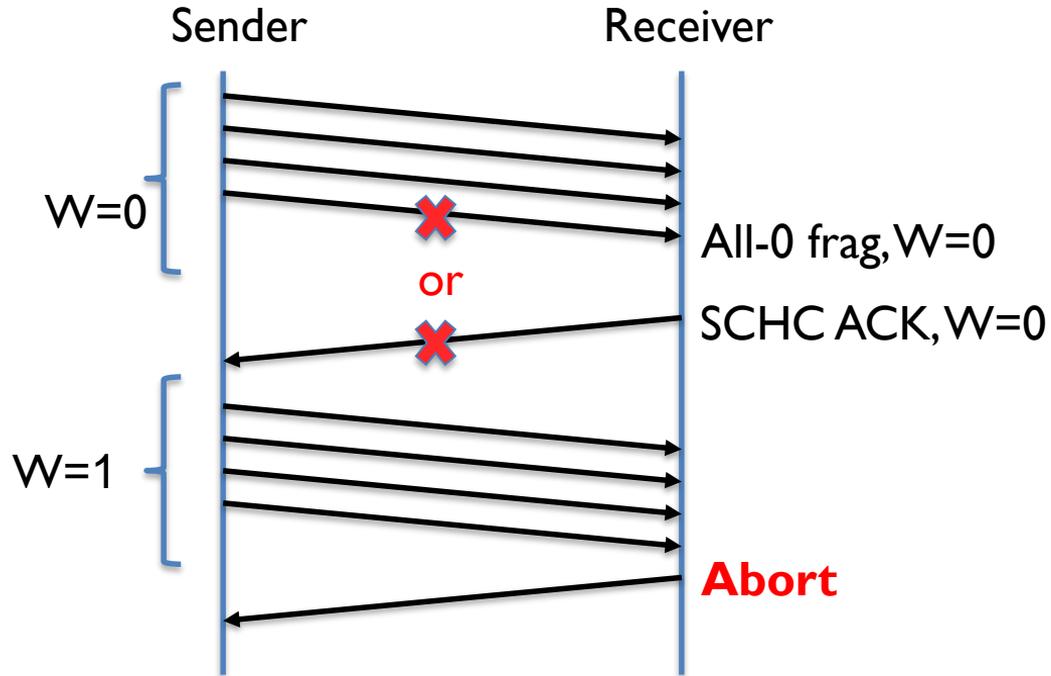
Our studies show that there is a situation where either a single lost All-0 fragment, or a lost SCHC ACK, would create a complete loss of session.

This is due to the fact that the baseline SCHC draft mandates aborting the session when a W bit out-of-sync is received.

Proposal: Allow for the ACK-on-Error mode to keep the last two windows. This way the receiver can request any lost fragment from the previous window and the sender can retransmit it.

The probability of a real out-of-sync with the W bit can be minimized with a relatively larger window size, e.g. 15 ($N=4$).

ACK-on-Error – Current Behaviour



ACK-on-Error Proposed

