

LPWAN WG

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Reminder:

Minutes are taken *

This meeting is recorded **

Presence is logged ***

- * Scribe; please contribute online to the minutes at: <https://etherpad.tools.ietf.org/p/lpwan>
- ** Recordings and Minutes are public and may be subject to discovery in the event of litigation.
- *** From the Webex login

Agenda bashing

17:05	Opening, agenda bashing (Chairs) <ul style="list-style-type: none">• Note-Well, Scribes, Agenda Bashing, Approval minutes from last meeting• Review todo• Status of drafts	10mn
17:15	Preparation for IETF 100	30mn
17:45	Fragmentation comments (Carles)	10mn
17:55	AOB	5mn

Last meeting Action items

- ~~LPWAN Overview~~
 - ~~Shepherd write up~~
- ~~Time scale draft submitted to CoRE~~

IETF 100 Preparation

The Chairs

IETF 100

- * [09:30] Administrivia [20min]
 - o Note-Well, Scribes, Agenda Bashing
 - o Status of drafts (WGLC / forthcoming WGLC)

- * [09:50] draft-ietf-lpwan-overview [10min]
 - o LPWAN Overview - Doc status and updates

- * [10:00] draft-ietf-lpwan-ipv6-static-context-hc
 - o Update on IPv6 compression [10min]
 - o Update on SCHC fragmentation [20min]

- * [10:30] draft-ietf-lpwan-coap-static-context-hc [10min]

- * [10:40] draft-barthel-icmpv6-schc [10min]

- * [10:50] draft-petrov-lpwan-ipv6-schc-over-lorawan [15min]

- * [11:05] draft-zuniga-lpwan-schc-over-sigfox [15min]

- * [11:20] ETSI LTN and LPWAN-CSS [30min]
- * [11:50] AOB [10min]

Fragmentation Discussion Group



- Tuesday
 - 14:30->17:00

- Hullet Room

LPWAN SCHC Fragmentation

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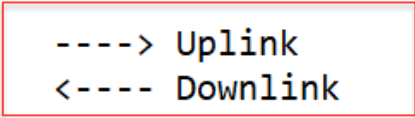
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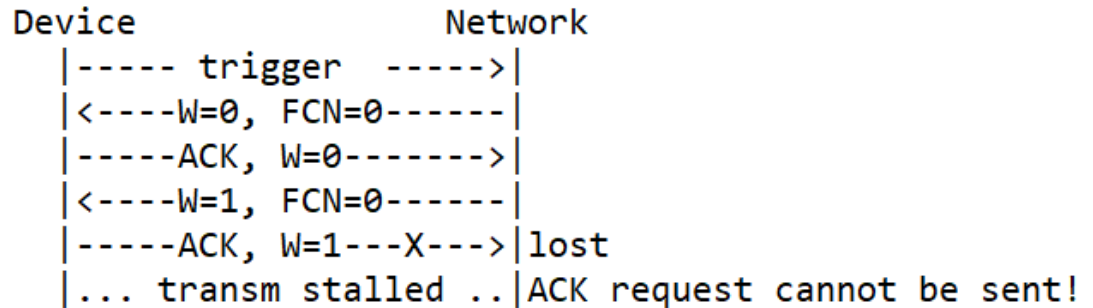
Problem

- Downlink fragmentation and ACK Always
 - In some technologies, an uplink message is required prior to the transmission of X downlink messages

- E.g. X=1



If ACK lost, neither the next fragments (if any) nor the “ACK request” can be sent



Proposed solution (I)

- The fragment receiver **MAY** support timer-based ACK retransmission
- A fragment receiver transmits an ACK. Then:
 - It initializes and starts the ACK Retry timer
 - Except for an ACK sent in response to the last frag of the packet confirming the last window has been correctly received
 - If a frag of the next window or a missing frag from current window arrives before timer expiration
 - Timer is stopped
 - If the timer expires
 - The ACK is resent and the timer is reinitialized and restarted

Proposed solution (II)

- Fragment sender
 - Transmits the last fragment
 - Initializes its ACK Always timer to a long value
 - “Long value”: e.g. several times the ACK Retry timer
 - If ACK received before timer expiration
 - Sender proceeds normally (e.g. resend any lost fragments)
 - If timer expires and no ACK received
 - Sender assumes its last fragment (and the whole last window) had been successfully received, and last ACK has been lost (most likely)
 - Otherwise, up to several ACK retries performed (unlikely that all fail)

Thanks!

Comments?

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AOB ?