LPWAN WG

WG Chairs:
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Webex

Note Well

This is a reminder of IETF policies in effect on various topics such as patents or code of conduct. It is only meant to point you in the right direction. Exceptions may apply. The IETF's patent policy and the definition of an IETF "contribution" and "participation" are set forth in BCP 79; please read it carefully.

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Definitive information is in the documents listed below and other IETF BCPs. For advice, please talk to WG chairs or ADs:

BCP 9 (Internet Standards Process)

BCP 25 (Working Group processes)

BCP 25 (Anti-Harassment Procedures)

BCP 54 (Code of Conduct)

BCP 78 (Copyright)

BCP 79 (Patents, Participation)

https://www.ietf.org/privacy-policy/ (Privacy Policy)

I E T F

Reminder:

Minutes are taken *
This meeting might be 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)	5mn
	• Note-Well, Scribes, Agenda Bashing	
	• Status of drafts	
17:10	Updates since last Interim - Dominique	15mn
17:25	Ack-on-Err open discussion	25mn
17:50	SCHC Minimal (Alexander)	10mn
18:00	AOB	QS

Changes to the draft

Dominique

draft-ietf-lpwan-ipv6-static-context-hc-16
Draft status

Authors:
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Note

- As always, all changes can be checked out at
  https://github.com/lp-wan/ip-compression/commits/master
  - Itemized commits
  - (hopefully) explicit commit messages
  - on-line diffs available

Changes to GitHub since last interim

- Merged Pull-Request
  - submitted by Arun (Sept 24th)
  - https://github.com/lp-wan/ip-compression/pull/21
  - Cleans up naming on ACK-Always State Machine

Other actions done

- Created Ticket #32
  - « make SCHC F/R MIC optional? »
  - https://trac.ietf.org/trac/lpwan/ticket/32
  - I believe no change to the text of the draft is required
  - Please read and comment in the Ticket tracker
  - 2 supports received by mail (Juan Carlos, Pascal)
- Chairs declared WG consensus regarding
  - State Machines in Appendix, only text is normative
- 2 implementation questions by Arun
  - One oversight uncovered: extra assumption to be written in the draft

ACK-on-Error design session

LPWAN

- Held Sept 26th, notes captured by Ana
- Reached agreement among participants on mechanism
  - W field is multi-bit, does not roll over
  - Fragments and ACKs now non-ambiguously refer to each window
- Summary mail sent out to ML on Sept 28th
  - Proposal to relax the lock-step behavior of fragment sender and receiver, in generic SCHC specification
  - FSM in Appendix still shows ACKs sent/received at the end of the windows
- 3 supports expressed on the ML (JCZ, DD, AP)
- Need to define the notion of profile (Pascal)
  - Ana different opinion?
    - Relates to Alex SCHC-minimal context question?

Next steps

- Resolve 7 points under discussion with Charlie
  - Charlie provided answers, to be processed
- Major work item
  - Write ACK-Always and ACK-on-Error descriptions, in the next few days
  - Juan Carlos provided ACK-on-Error state machine drawings
- Oct 22nd is IETF103 draft publication cut-off date
  - Allow some time for iterations between authors before then

Thank you!

SCHC NOT-IMPLEMENTED RULE

Alexander Pelov <a@ackl.io>

SCHC
Fragmentation
Discussion

SCHC-Minimal

Alexander Pelov <a@ackl.io>

SCHC Interoperability

- Two end-points (A and B)
  - Two technologies (FOO and BAR)
    - A: SCHC-over-FOO
    - B: SCHC-over-BAR
  - Same technology (FOO)
    - A and B: SCHC-over-FOO
- Bootstraping
  - A and B MUST know each-other (No-default)
  - A and B MUST know a sufficient subset of each-other, so that they can have a minimal exchange (SCHC-Minimal)

Bootstrapping

- In both cases (No-default and SCHC-Minimal)
  - Need to define how it will work at a later stage
- Context provisionning
  - No-default: always Out-of-band
  - SCHC-Minimal: Out-of-band AND/OR In-band
- With SCHC-Minimal always have a way to communicate (fall-back)

Technology-specific?

- SCHC-Minimal can be technology-agnostic
  - All technology providers need to agree
    - There can be technology-specific extensions

  - Or have SCHC-over-FOO-Minimal
    - Independent SCHC-over-LoRaWAN-Minimal, SCHC-over-Sigfox-Minimal, SCHC-over-NBIOT-Minimal

SCHC-Minimal

- Pros
  - Enables in-band bootstrap
    - Also, can make IP GW independent of technology
  - Can help interops
  - Have running systems without specifying the whole process

- Cons
  - All devices must implement the default context
  - Getting everyone to agree on a set of parameters could take time
    - Least-common denominator for the constraints

AOB ?