LPWAN WG

WG Chairs:
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AD: Suresh Krishnan
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Note Well

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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)

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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

Interim, October 3rd, 2018
Agenda bashing

17:05 Opening, agenda bashing (Chairs)
  • Note-Well, Scribes, Agenda Bashing
  • Status of drafts

17:10 Updates since last Interim - Dominique

17:25 Ack-on-Err open discussion

17:50 SCHC Minimal (Alexander)

18:00 AOB
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)
  - Cleans up naming on ACK-Always State Machine
Other actions done

• Created Ticket #32
  – « make SCHC F/R MIC optional? »
  – [link](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

• 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 ?