LPWAN WG

WG Chairs:
Alexander Pelov <a@ackl.io>
Pascal Thubert <pthubert@cisco.com>

AD: Suresh Krishnan
<suresh@kaloom.com>
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.

As a reminder:

- By participating in the IETF, you agree to follow IETF processes and policies.
- If you are aware that any IETF contribution is covered by patents or patent applications that are owned or controlled by you or your sponsor, you must disclose that fact, or not participate in the discussion.
- As a participant in or attendee to any IETF activity you acknowledge that written, audio, video, and photographic records of meetings may be made public.
- Personal information that you provide to IETF will be handled in accordance with the IETF Privacy Statement.
- As a participant or attendee, you agree to work respectfully with other participants; please contact the ombudsteam (https://www.ietf.org/contact/ombudsteam/) if you have questions or concerns about this.

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/](https://www.ietf.org/privacy-policy/) (Privacy Policy)
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
The general agenda for all meetings is as follows:

[16:05] Administrivia [5min]
- Note-Well, Scribes, Agenda Bashing
- Status of drafts

[16:10] Status of SCHC draft (IPv6/UDP) [10min]
[16:20] Status of SCHC draft (CoAP) [10min]
[16:30] SCHC over LoRaWAN [25min]
[16:55] AOB [5min]
## WG progress

### Milestones

<table>
<thead>
<tr>
<th>Date</th>
<th>Milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 2019</td>
<td>Submit CoAP compression mechanism to the IESG for publication as a Proposed Standard</td>
</tr>
<tr>
<td></td>
<td>draft-ietf-lpwan-coap-static-context-hc</td>
</tr>
<tr>
<td></td>
<td><strong>Done</strong> Submit IP/UDP compression and fragmentation mechanism to the IESG for publication as a Proposed Standard</td>
</tr>
<tr>
<td></td>
<td>draft-ietf-lpwan-ipv6-static-context-hc</td>
</tr>
<tr>
<td></td>
<td><strong>Done</strong> Submit LPWAN specification to the IESG for publication as an Informational Document</td>
</tr>
<tr>
<td></td>
<td><strong>Done</strong> Adopt CoAP compression mechanism as a WG item</td>
</tr>
<tr>
<td></td>
<td><strong>Done</strong> Adopt IP/UDP compression and fragmentation mechanism as a WG item</td>
</tr>
<tr>
<td></td>
<td><strong>Done</strong> Adopt LPWAN specifications as WG item</td>
</tr>
</tbody>
</table>

Interim, October 9th, 2019
draft-ietf-lpwan-ipv6-static-context-hc

IESG review status

Authors:
Laurent Toutain <Laurent.Toutain@imt-atlantique.fr>
Carles Gomez <carlesgo@entel.upc.edu>
Ana Minaburo <ana@acklio.io>
Dominique Barthel <dominique.barthel@orange.com>
Juan Carlos Zuniga <juancarlos.zuniga@sigfox.com>
IESG review status

- SCHC draft on IESG telechat agenda Aug 22\textsuperscript{nd}
  - Burst of IESG reviews shortly before that day
  - \url{https://datatracker.ietf.org/doc/draft-ietf-lpwan-ipv6-static-context-hc/ballot/}
    - Originally 3 DISCUSSes, 7 “No Objection”, 1 “YES”
- Acted on Eric Vyncke’s comments, DISCUSS cleared Aug 22\textsuperscript{nd}
- Worked on other comments, proposing changes or explaining position
- IESG members less reactive since telechat
- Co-authors phone conf on Sept 15\textsuperscript{th}
  - Discussed pending issues, distributed work among co-authors
- A short pause on my side since then
- Spontaneous comments by Brian Carpenter Sept 26\textsuperscript{th}
Work setup

- 9 reviews being worked on
- Keeping track of all comments and proposed changes
- Editing separate git branches for change-extensive reviews, e.g.
  - https://github.com/lp-wan/ip-compression/compare/master...PeteResnick
- Trying to get approval before committing into next draft revision

Interim, October 9th, 2019
Comments, by topic

• Editorship
  – Normative language: OPTIONAL; at Profile level or at runtime?
  – Appendices E, F: unclear if normative or not.
  – RFC 8376 to be made normative ref.

• Content
  – Security considerations: major improvement on-going
  – Interactions with lower layer: bidirectional link, queue overload
  – Introduction section: some rework

• Technical
  – Subject to BREACH/CRIME-like attacks on compression?
  – Can fragmentation be used to bypass firewalls?
  – Privacy issues with Dtag being a sequence counter
  – IPv6 Flow Label compression
  – Variable length encoding
  – …
Next steps

• Resume editor work
• Integrate contributions by co-authors
• Get reviewers attention and approval
  – Merge git branches as changes are accepted
  – Resolving any conflicts
• OR, publish new revision anyway
  – which might get their attention

• Recommendations?
Thank you!
draft-ietf-lpwan-schc-over-lorawan

Authors:
Ivaylo Petrov <ivaylo@ackl.io>
Olivier Gimenez <ogimenez@semtech.com>
Julien Catalano <j.catalano@kerlink.fr>

IETF Virtual Interim, Oct 9th, 2019
Overview

• What has happened since IETF105?
  – work on v03 that addresses WG comments about FPort usage to represent most of the RuleId
Changes

- Authorize the use of whole allowed range of FPorts [1:223] for RuleId
- Merged again FPortUpDefault and FPortUpShort
- Tried to alleviate the confusion around FPorts and RuleId
- Tile size fixed at 5 bytes
- DTag size changed to 0 bits, clarified interleaving packets
- Use of MUST/RECOMMEND/SHOULD as appropriate
More changes

- Updated terminology to be compatible with v21 of the SCHC draft.
- More detailed examples with part of LoRa header structures.
- Improved language and formatting.
- Updated the draft template.
- Added Julien Catalano as an author.
Next steps

- Have some reviews
- Finish IID computation section (looking at RFC8065 and others for that)
- Be ready for WGLC by next IETF
Questions?

Thank you for your attention
AOB ?