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)
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

16:05 Opening, agenda bashing (Chairs)
   • Note-Well, Scribes, Agenda Bashing
   • Last time todos
   • Status of drafts

16:10 SCHC over LoRaWAN (Ivaylo)  30mn

16:40 CoAP over SCHC (Ana)  10mn

16:50 AOB  10mn
# 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><strong>Done</strong></td>
<td>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><strong>Done</strong></td>
<td>Submit LPWAN specification to the IESG for publication as an Informational Document</td>
</tr>
<tr>
<td><strong>Done</strong></td>
<td>Adopt CoAP compression mechanism as a WG item</td>
</tr>
<tr>
<td><strong>Done</strong></td>
<td>Adopt IP/UDP compression and fragmentation mechanism as a WG item</td>
</tr>
<tr>
<td><strong>Done</strong></td>
<td>Adopt LPWAN specifications as WG item</td>
</tr>
</tbody>
</table>
Tentative schedule

• IP/UDP SCHC
  • Pending IOT Directorate Review
    – Carsten reviewed Compression, working on Fragmentation
  • Pending INT Directorate Review
    – Waiting input from Suresh on next steps

• Rechartering soon
draft-ietf-lpwan-schc-over-lorawan

Authors:
Nicolas Sornin <nsornin@semtech.com>
Michael Coracin <mcoracin@semtech.com>
Ivaylo Petrov <ivaylo@ackl.io>
Olivier Gimenez <ogimenez@semtech.com>
Marc LE GOURRIEREC <marc.legourrierec@sagemcom.com>
Alper Yegin <alper.yegin@actility.com>
Julien Catalano <j.catalano@kerlink.fr>
Vincent AUDEBERT <vincent.audebert@edf.fr>

IETF Virtual Interim, May 29th, 2019
Recap

• What has happened since IETF104?
  – v03 became v00 of the WG draft
  – Work on v01
Changes

- Update link to LoRaWAN specification
- Add Marc and Olivier as Authors (I believe we should discuss this moving people to Contributors).
- Update references to LPWAN overview document
- Typos + more clear wording (bytes instead of octets, etc)
- Updated Architecture figure
- Some reminders of mapping between LoRaWAN terminology and IETF terminology provided as we go for clarity
- The generic term devices is replaced by the more precise end-devices wherever that is appropriate
More changes

- Extra details added to figure LoRaWAN addresses
- Details about the difference between confirmed and unconfirmed messages
- Added a short section about Overview of LoRaWAN MAC Frames
- FportDwn and FPortUp are replaced by FPortUpShort (1 byte header, max msg size 381), FPortUpDefault (2 byte header max msg size 1524) and FPortDown and their description is improved
- RuleID min supported size extended from 3bit to 6 bits
- Open question: IID computation
Further changes

- ACK-on-Error replaces Ack-Always for uplink fragmentation
- Added Dtag of 1 bit in fragmentation
- Fragmentation parameters are represented as a list - more concise and hopefully, easier for implementers to follow
- Fragmentation Figures are reworked accordingly
- Ack format might be slightly different than the original SCHC draft
- Examples are added for uplink
Next steps

- Publish this new version before next IETF
- Have some reviews
- Iterate
Thank you for your attention
draft-ietf-lpwan-coap-static-context-hc-07

Laurent Toutain
Ana Minaburo
Ricardo Andreasen

Interim, May 29th, 2019
Version -07

• Difference from -06

• WGLC started
  – Waiting for comments
AOB ?