# LPWAN WG

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

AD: Eric Vyncke
<evyncke@cisco.com>

Interim, January 5th, 2021

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)**

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# Reminder:

Minutes are taken *
This meeting might be recorded **
Presence is logged ***

* Please contribute to the minutes at: https://codimd.ietf.org/notes-ietf-interim-2021-lpwan-01-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] Administrivia [10min]
- Note-Well, Scribes, Agenda Bashing
- WG Status
- IETF 110: Do we meet?

*

[16:15] SCHC over LoRaWAN [ 5min]

[16:20] CoAP over SCHC

[25min] [16:45] Open Bar / AOB

[ QS ]

# WG Status

## Milestones

| Date | Milestone |
|---|---|
| Jul 2021 | Produce a Standards Track document to enable operations, administration and maintenance (OAM) to the LPWAN device, including support for delayed or proxied liveness verification (Ping) |
| Feb 2021 | Produce a Standards Track document to define the generic data models to formalize the compression and fragmentation contexts for LPWANs |
| Dec 2020 | Produce Standard Track documents to apply SCHC IPv6/UDP over the baseline technologies |
| May 2020 | Perform SCHC Maintenance, including enabling SCHC mechanisms for Upper layer Protocols |

# Documents advancement

| Document | Date | Status | IPR | AD / Shepherd |
|---|---|---|---|---|
| **Active Internet-Drafts (5 hits)** | | | | |
| draft-ietf-lpwan-coap-static-context-hc-16<br>**LPWAN Static Context Header Compression (SCHC) for CoAP** | 2020-10-20<br>31 pages | IESG Evaluation::AD Followup **for 173 days**<br>Submitted to IESG for Publication: Proposed Standard<br>Reviews: genart, iotdir, opsdir, secdir, tsvart | | Éric Vyncke<br>Pascal Thubert |
| draft-ietf-lpwan-schc-over-lorawan-13<br>**Static Context Header Compression (SCHC) over LoRaWAN** | 2020-10-30<br>28 pages | Approved-announcement to be sent::Revised I-D Needed **for 61 days**<br>Submitted to IESG for Publication: Proposed Standard<br>Reviews: genart, iotdir, opsdir, secdir, tsvart | 1 | Éric Vyncke<br>Dominique Barthel |
| draft-ietf-lpwan-schc-over-nbiot-03<br>**SCHC over NB-IoT** | 2020-07-13<br>23 pages **Expires soon** | I-D Exists<br>WG Document | | Éric Vyncke |
| draft-ietf-lpwan-schc-over-sigfox-04<br>**SCHC over Sigfox LPWAN** | 2020-11-02<br>14 pages | I-D Exists<br>WG Document | | Éric Vyncke |
| draft-ietf-lpwan-schc-yang-data-model-03<br>**Data Model for Static Context Header Compression (SCHC)** | 2020-07-10<br>42 pages **Expires soon** | I-D Exists<br>WG Document | | Éric Vyncke |
| **RFCs (2 hits)** | | | | |
| RFC 8376 *(was draft-ietf-lpwan-overview)*<br>**Low-Power Wide Area Network (LPWAN) Overview** | 2018-05<br>43 pages | Informational RFC | | Suresh Krishnan<br>Alexander Pelov |
| RFC 8724 *(was draft-ietf-lpwan-ipv6-static-context-hc)*<br>**SCHC: Generic Framework for Static Context Header Compression and Fragmentation** | 2020-04<br>71 pages | Proposed Standard RFC | | Suresh Krishnan<br>Pascal Thubert |

| Document | Date | Status | IPR | AD / Shepherd |
|---|---|---|---|---|
| **Related Internet-Draft (1 hit)** | | | | |
| draft-barthel-lpwan-oam-schc-02<br>**OAM for LPWAN using Static Context Header Compression (SCHC)** | 2020-11-02<br>14 pages | I-D Exists | | |

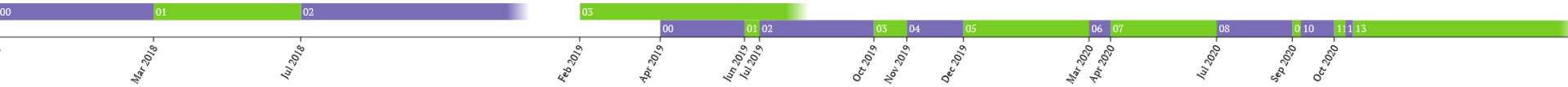
# IETF 110

- Virtual CET time (Prague)
- Deadline requesting a meeting in 3 weeks: Friday 22nd of January
- Go ?

# Status: draft-ietf-lpwan-schc-over-lorawan

Editors:
Ivaylo Petrov (ivaylo@ackl.io)
Olivier Gimenez (ogimenez@semtech.com)

# Document Progress




| | | |
|---|---|---|
| **Document** | **Type** | Active Internet-Draft (lpwan WG) |
| | **Authors** | Olivier Gimenez ✉ , Ivaylo Petrov ✉ |
| | **Last updated** | 2020-11-05 (latest revision 2020-10-30) |
| | **Replaces** Edit | draft-petrov-lpwan-ipv6-schc-over-lorawan |
| | **Stream** | IETF |
| | **Intended RFC status** Edit | Proposed Standard |
| | **Formats** | plain text · pdf · htmlized (tools) · htmlized · bibtex |
| | **Reviews** | TSVART Last Call Review: Ready with Nits<br>GENART Last Call Review (of -10): Ready with Nits<br>IOTDIR Telechat Review (of -10): Ready with Issues<br>*SECDIR Last Call Review - due: 2020-10-02*<br>*OPSDIR Last Call Review - due: 2020-10-02*<br>Request review |
| | **Additional Resources** Edit | - Mailing list discussion |

| | | |
|---|---|---|
| **Stream** | **WG state** Edit | Submitted to IESG for Publication |
| | **On Agenda** Edit | None |
| | **Document shepherd** Edit | Dominique Barthel |
| | **Shepherd write-up** Edit Show | (last changed 2020-10-06) |
| **IESG** | **IESG state** | Approved-announcement to be sent::Revised I-D Needed |
| | **Consensus Boilerplate** Edit | Yes |
| | **Telechat date** | |
| | **Responsible AD** | Éric Vyncke |
| | **IESG note** | AD has checked with authors whether the Lora Alliance has reviewed this document: yes, review done. |
| | **Send notices to** Edit | Dominique Barthel <dominique.barthel@orange.com> |
| **IANA** | **IANA review state** | IANA OK - No Actions Needed |

# draft-ietf-lpwan-coap-static-context-hc-16

Authors:

Ana Minaburo

Laurent Toutain

Ricardo Andreasen


To All of You and your Family!

# Next Steps

- V17 be published after this meeting
  - Benjamin Kaduk messages
    - DISCUSS mail
    - SECDIR v-15 comments

# Last Inputs from Benjamin Kaduk

- Section 2 SCHC Applicability to CoAP (v-16)
  - BK comment: The new descriptions do help quite a bit; thank you!
    I think that perhaps the intent was to remove the paragraph before Figure 1, though, since it seems to be describing something quite different from both the figure and the (new) paragraph after the figure.

"The SCHC Compression Rules can be applied to CoAP headers. SCHC Compression of the CoAP header MAY be done in conjunction with the lower layers (IPv6/UDP) or independently. The SCHC adaptation layers, described in Section 5 of [rfc8724], may be used, as shown in Figure 1,Figure 2 and Figure 3"

- New for v-17:

"~~The SCHC Compression Rules can be applied to CoAP headers.~~ SCHC Compression for CoAP header MAY be done in conjunction with the lower layers (IPv6/UDP) or independently. The SCHC adaptation layers, described in Section 5 of {{rfc8724}}, may be used as shown in {{Fig-SCHCCOAP1}}, {{Fig-SCHCCOAP2}} and {{Fig-SCHCCOAP3}}."

# SECDIR inputs v-15

- BK comment: “The secdir review of the -15 made some good points and suggestions, including pointing out in the security considerations that the typical compression attacks we worry about aren't an issue here (and why). I don’t see these points fixed in v-16.”

- SECDIR: “It appears that CoAP is designed for low end devices speaking standard protocols with a lot of static content they would like to suppress to avoid wasting processing time and communications overhead. That means that these devices are likely to be generating and parsing the compressed content directly rather than generating the full content and then compressing it. One security considerations worth noting is that whenever compression is used with a protocol intended to be encrypted (which this one is), the question should be raised as to whether the compression can be leveraged by an attacker to make traffic analysis more effective. In this case, I don't believe it can, but there should probably be an explanation of why in the security considerations. (The explanation is that the values in earlier fields do not affect the compression of later fields, so an attacker cannot supply values whose length after compression will leak the values of other compressed fields).

# SECDIR inputs v-15

- SECDIR: “Synchronizing the compression parameters is explicitly out of scope for this document, but this document allows for so many different variations in the parameter settings that it's not clear whether these settings are intended to by dynamically negotiated.”

- This should belong to an Architecture document?

# Thank you

# AOB ?