LPWAN WG

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

AD: Suresh Krishnan
<suresh@kaloom.com>

Interim, January 16th, 2019

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.

As a reminder:

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- **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/ (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

Agenda bashing

17:05	Opening, agenda bashing (Chairs) • Note-Well, Scribes, Agenda Bashing • Last time todos • Status of drafts • IETF 104	10mn
17:15	SCHC IESG review (Dominique)	10mn
17:25	SCHC next steps (chairs)	10mn
17:35	Recharter (chairs)	25mn
18:00	AOB	0mn

Last meeting Todos

- Pascal to schedule new meetings starting 16 of Jan.
  => Created 6 meetings, every other week till March 13th
- Pascal to update the milestone for SCHC COAP: November next year
  => See next slide
- Juan Carlos to check the references

WG progress

Milestones

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

Draft Status (1/2)

Document	Date	Status	IPR	AD / Shepherd
Active Internet-Drafts (2 hits)				
draft-ietf-lpwan-coap-static-context-hc-05 **LPWAN Static Context Header Compression (SCHC) for CoAP**	2018-10-22 28 pages	I-D Exists WG Document: Proposed Standard *Nov 2019*		
draft-ietf-lpwan-ipv6-static-context-hc-18 **LPWAN Static Context Header Compression (SCHC) and fragmentation for IPv6 and UDP**	2018-12-14 76 pages	AD Evaluation for 13 days Submitted to IESG for Publication: Proposed Standard Reviews: intdir, iotdir *Dec 2018*		Suresh Krishnan Pascal Thubert
RFC (1 hit)				
RFC 8376 *(was draft-ietf-lpwan-overview)* **Low-Power Wide Area Network (LPWAN) Overview**	2018-05 43 pages	Informational RFC		Suresh Krishnan Alexander Pelov

Draft Status (2/2)

draft-authors-lpwan-schc-802154-00 **SCHC for 802.15.4 lpwan applications**	2018-07-16 7 pages Expires soon	I-D Exists
draft-balakrichenan-lpwan-dns-usage-00 **DNS usage in LPWAN**	2018-12-31 4 pages	I-D Exists
draft-minaburo-lpwan-nbiot-hc-01 **LPWAN Static Context Header Compression (SCHC) over NB-IoT**	2018-09-04 17 pages	I-D Exists
draft-zuniga-lpwan-schc-over-sigfox-05 **SCHC over Sigfox LPWAN**	2018-11-05 9 pages	I-D Exists
draft-farrell-lpwan-lora-overview-01 **LoRaWAN Overview**	2016-10-28 12 pages	Expired
draft-minaburo-lpwan-gap-analysis-02 **LPWAN Survey and GAP Analysis**	2016-10-19 17 pages	Expired
draft-ratilainen-lpwan-nb-iot-00 **NB-IoT characteristics**	2016-07-08 9 pages	Expired
draft-toutain-6lpwa-ipv6-static-context-hc-01 **6LPWA Static Context Header Compression (SCHC) for IPV6 and UDP**	2016-06-21 13 pages	Expired

IETF 104 (1/2)

Sessions - View (meeting: 104)	
Working Group Name:	IPv6 over Low Power Wide-Area Networks (lpwan)
Area Name:	Internet Area
Number of Sessions Requested:	1
Length of Session 1:	2 Hours
Number of Attendees:	75
Conflicts to Avoid:	First Priority: 6lo roll rift 6tisch core intarea Second Priority: detnet netconf lwig suit ace Third Priority: cbor 6man bier
Other WGs that included IPv6 over Low Power Wide-Area Networks in their conflict list:	6lo, intarea, lwig, cbor, 6tisch
Resources requested:	*None so far*
People who must be present:	▪ Suresh Krishnan ▪ Pascal Thubert ▪ Alexander Pelov
Special Requests:	The PAW BoF MUST be avoided as well

Activies Log

Date	Time	Action	Name
Jan 16, 2019	02:00:40	New session was requested	Pascal Thubert

IETF 104 (1/2)

- 2018-12-31 (Week of): IETF Online Registration Opens.
- 2019-02-04 (Monday): Early Bird registration and payment cut-off at UTC 23:59.
- 2019-02-08 (Friday): Cut-off date for BOF proposal requests to Area Directors at UTC 23:59. To request a BOF, please see instructions on Requesting a BOF.
- 2019-02-08 (Friday): Cut-off date for requests to schedule Working Group Meetings at UTC 23:59. To request a Working Group session, use the IETF Meeting Session Request Tool.
- 2019-02-15 (Friday): Cut-off date for Area Directors to approve BOFs at UTC 23:59.
- 2019-02-22 (Friday): Preliminary Agenda published for comment.
- 2019-02-27 (Wednesday): Cut-off date for requests to reschedule Working Group or BOF meetings UTC 23:59.
- 2019-03-01 (Friday): Final agenda to be published.
- 2019-03-11 (Monday): Internet Draft submission cut-off (for all drafts, including -00) by UTC 23:59. Upload using the ID Submission Tool.

SCHC IESG Review

WG Next steps

Tentative schedule

- February 15th
  - Recharter
- By IETF 104 cutoff:
  - All SCHC over foo docs refreshed
  - ICMP / management draft?

Recharter

Status

WG formed October 14th, 2016

Done Charter item #1 (Informational document)

- Baseline technology description

- Charter item #2 (Standards track document)
  - Enable the compression and fragmentation of a CoAP/UDP/IPv6 packet over LPWA networks

Rechartering

- After submitting SCHC IP/UDP to IESG
  (before IETF 103)

- Charter item #2
  - Split in 3 charter items (Standards track documents)
    - SCHC for CoAP
    - Data model for context representation
    - Documents for each baseline technology
  - New charter item (Standards track document)
    - Operations, Administration and Maintenance (OAM) of LPWAN devices (incl. delayed proxied liveliness, Ping)

Charter 1

1. Produce an Informational document describing and relating some selected LPWA technologies. This work will document the common characteristics and highlight actual needs that the IETF could serve; but it is not intended to provide a competitive analysis. It is expected that the information contained therein originates from and is reviewed by people who work on the respective LPWA technologies.
2. Produce a Standards Track document to enable the compression and fragmentation of a CoAP/UDP/IPv6 packet over LPWA networks. This will be achieved through stateful mechanisms, specifically designed for star topology and severely constrained links. The work will include the definition of generic data models to describe the compression and fragmentation contexts. This work may also include to define technology-specific adaptations of the generic compression/fragmentation mechanism wherever necessary.

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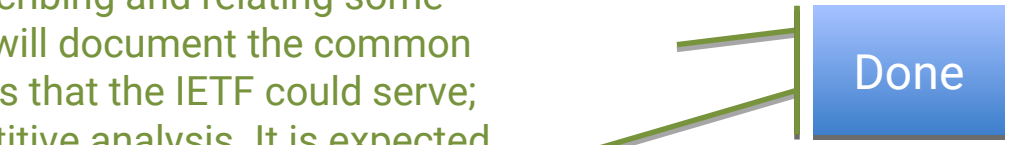

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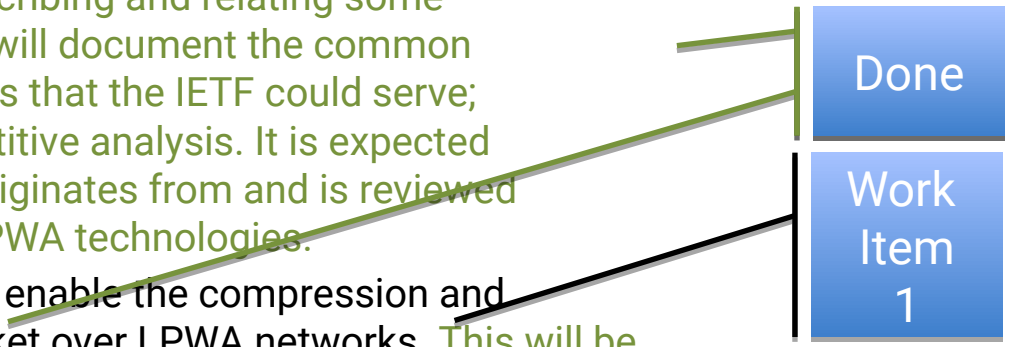

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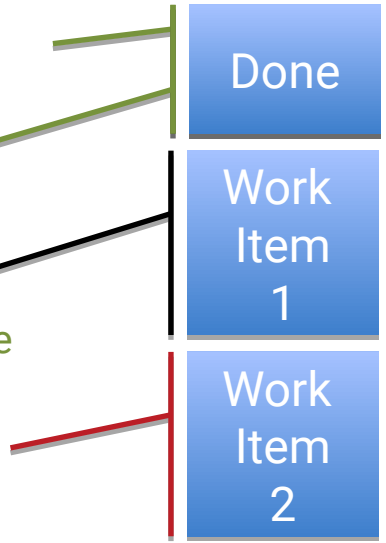

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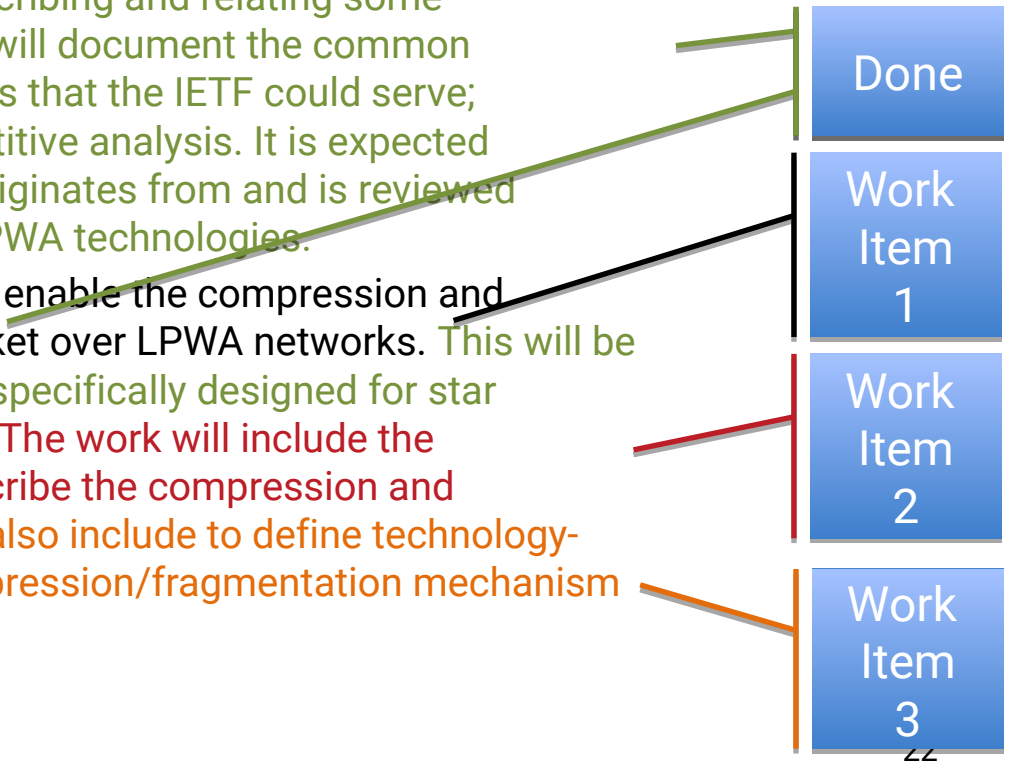

Charter 1I

12. Produce a Standards Track document to enable the compression and fragmentation of a CoAP~~/UDP/IPv6 packet~~ messages over LPWA networks. This will be
achieved through stateful mechanisms, ~~specifically designed for star topology and severely constrained links~~ for a relevant subset of the possible CoAP interactions (TBD as part of the work).
2. Produce a Standards Track document to ~~The work will include the~~define the ~~definition of~~ generic data models to formalize ~~describe~~ the compression and fragmentation contexts.
3. Produce Standard Track documents to apply SCHC IPv6/UDP over the baseline technologies. ~~This work may also include to define technology-specific adaptations of the generic compression/fragmentation mechanism wherever necessary.~~

Charter 1I

1 Produce a Standards Track document to enable the compression and fragmentation of a CoAP messages over LPWA networks. This will be achieved through stateful mechanisms, -for a relevant subset of the possible CoAP interactions (TBD as part of the work).

2. Produce a Standards Track document to define the generic data models to formalize the compression and fragmentation contexts.

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3. Produce Standard Track documents to apply SCHC IPv6/UDP over the baseline technologies.

4. Produce a Standards Track document to enable operations, administration and maintenance (OAM) to the LPWAN device, including support for delayed or proxyed liveliness verification (Ping).

From work on ICMPv6

5. ? IPv4 ? Other ?

AOB ?