

LPWAN WG

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Note Well

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[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 ***

* Please contribute to the minutes at: <https://codimd.ietf.org/notes-ietf-interim-2020-lpwan-15-lpwan?both>

** 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]
o Note-Well, Scribes, Agenda Bashing	
o WG Status, IETF 109 News	
[16:15] CoAP over SCHC	[15min]
[16:30] SCHC over LoRaWAN	[15min]
[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-15 LPWAN Static Context Header Compression (SCHC) for CoAP	2020-07-03 30 pages	IESG Evaluation::Revised I-D Needed for 96 days Submitted to IESG for Publication:Proposed Standard Reviews: genart, iotdir, opsdire, secdir, tsvar		Éric Vyncke Pascal Thubert
draft-ietf-lpwan-schc-over-lorawan-11 Static Context Header Compression (SCHC) over LoRaWAN	2020-10-15 27 pages New	IESG Evaluation for 1 day IESG telechat: 2020-11-05 Submitted to IESG for Publication:Proposed Standard Reviews: genart, iotdir, opsdire, secdir, tsvar	1	Éric Vyncke Dominique Barthel
draft-ietf-lpwan-schc-over-nbiot-03 SCHC over NB-IoT	2020-07-13 23 pages	I-D Exists WG Document		Éric Vyncke
draft-ietf-lpwan-schc-over-sigfox-03 SCHC over Sigfox LPWAN	2020-07-13 13 pages	I-D Exists WG Document		Éric Vyncke
draft-ietf-lpwan-schc-yang-data-model-03 Data Model for Static Context Header Compression (SCHC)	2020-07-10 42 pages	I-D Exists WG Document		Éric Vyncke
RFCs (2 hits)				
RFC 8376 (was draft-ietf-lpwan-overview) Low-Power Wide Area Network (LPWAN) Overview	2018-05 43 pages	Informational RFC		Suresh Krishnan Alexander Pelov
RFC 8724 (was draft-ietf-lpwan-ipv6-static-context-hc) SCHC: Generic Framework for Static Context Header Compression and Fragmentation	2020-04 71 pages	Proposed Standard RFC		Suresh Krishnan Pascal Thubert

IETF 109 Next Important Dates



- **2020-10-09 (Friday):** Cut-off date for Area Directors to approve BOFs
- **2020-10-16 (Friday):** Early Bird registration and payment cut-off
- **2020-10-16 (Friday):** Preliminary Agenda published for comment.
- **2020-10-21 (Wednesday):** Cut-off date for requests to reschedule WG
- **2020-10-23 (Friday):** Final agenda to be published.
- **2020-11-02 (Monday):** Standard rate registration and payment cut-off
- **2020-11-02 (Monday):** Internet Draft submission cut-off (for all drafts)

Status: draft-ietf-lpwan-coap-static-context-hc

Ana Minaburo
Laurent Toutain
Ricardo Andreassen

Status

LPWAN Static Context Header Compression (SCHC) for CoAP

draft-ietf-lpwan-coap-static-context-hc-15

Status

[IESG evaluation record](#)

[IESG writeups](#)

[Email expansions](#)

[History](#)

Discuss

[Benjamin Kaduk](#)
(Alexey Melnikov)

Yes

(Suresh Krishnan)
[Éric Wyncke](#)

No Objection

[Deborah Brungard](#)
[Alissa Cooper](#)
[Roman Danyliw](#)
[Martin Duke](#)
[Erik Kline](#)
[Murray Kucherawy](#)
[Warren Kumari](#)
([Mirja Kühlewind](#))
[Barry Leiba](#)
[Alvaro Retana](#)
([Adam Roach](#))
[Martin Vigoureux](#)
[Magnus Westerlund](#)
[Robert Wilton](#)

Summary: Has a DISCUSS. Has enough positions to pass once DISCUSS positions are resolved.

[Benjamin Kaduk](#)

Discuss (2020-07-15)

I don't think we quite managed to catch all the collateral damage from my previous discuss points on the -13. In particular, while Sections 5.x no longer attempt to discuss directionality of CoAP Options, there are some in-passing references to them in Section 3.1:

- There's a claim that URI-Path (though, spelled as "URI-path") is not present in the response, which is incorrect.
- There's a reference to a nonexistent "Content" option as being present only in a response, but the "Content-Format" option is allowed in both requests and responses. (See, e.g., the PUT method for use of Content-Format in a request.)
- The "Accept" option is referenced as only being present in requests. This seems to be accurate as far as I can see in RFC 7252, though in light of the near-complete removal of such references from this document, perhaps it should also be removed.

While the expanded security considerations do cover several important points, I think it's important to specifically state that the RFC 8724 procedures assume that SCHC is implemented on top of LPWAN technologies that implement security mechanisms. I think we also need to specify that either (a) this assumption remains for the CoAP usage of SCHC, or that (b) CoAP has use cases outside of LPWAN, and when SCHC is used in those non-LPWAN cases, the attacks (such as are now described in the -15) are more readily performed than in the secure LPWAN environment when no other integrity protection mechanism is in place for the compressed packets.

As Francesca noted on the -13, we need to acknowledge that there are and will be in the future CoAP options that are not included in this document and provide some indication of how they might be handled.

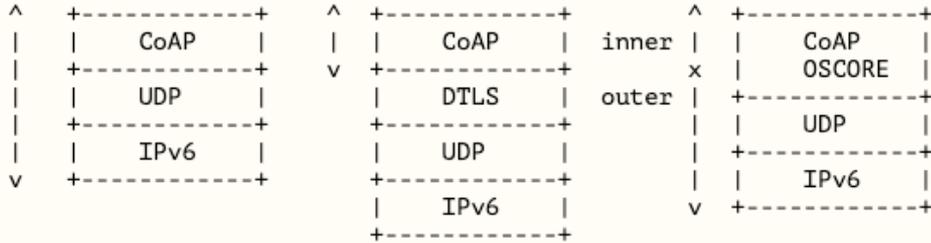


Figure 1: rule scope for CoAP

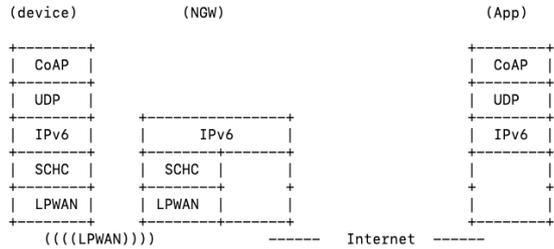


Figure 1: Compression/decompression at the LPWAN boundary

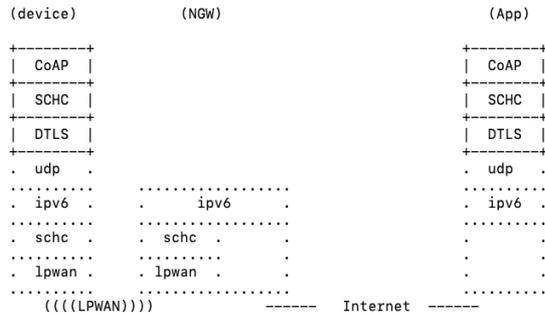
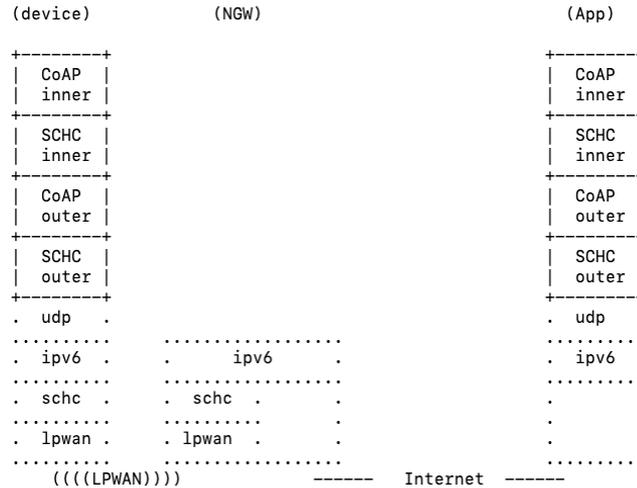


Figure 2: Standalone CoAP end-to-end compression/decompression



OSCORE

- Add Field Length to rules

RuleID 0

Field	FL	FP	DI	Target Value	MO	CDA	Sent [bits]
CoAP version	2	1	bi	01	equal	not-sent	
CoAP Type	2	1	up	0	equal	not-sent	
CoAP Type	2	1	dw	2	equal	not-sent	
CoAP TKL	4	1	bi	1	equal	not-sent	
CoAP Code	8	1	up	2	equal	not-sent	
CoAP Code	8	1	dw	68	equal	not-sent	
CoAP MID	16	1	bi	0000	MSB(12)	LSB	MMMM
CoAP Token	tkl	1	bi	0x80	MSB(5)	LSB	TTT
CoAP OSCORE_flags	8	1	up	0x09	equal	not-sent	
CoAP OSCORE_piv	var	1	up	0x00	MSB(4)	LSB	PPPP
COAP OSCORE_kid	var	1	up	0x636c69656e70	MSB(52)	LSB	KKKK
COAP OSCORE_kidctx	var	1	bi	b''	equal	not-sent	
CoAP OSCORE_flags	8	1	dw	b''	equal	not-sent	
CoAP OSCORE_piv	var	1	dw	b''	equal	not-sent	
CoAP OSCORE_kid	var	1	dw	b''	equal	not-sent	

Security section

- Security with LPWAN but also with other « L2 » technologies.
- Rephrase variable length explanations

Conclusion

- currently on github
- Last feedback from the group ?
- -16 will be soon be published,
- Answer to IESG

Thanks to IESG and AD for their comments and help

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

Editors:

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Olivier Gimenez (ogimenez@semtech.com)

AOB ?