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.**
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- **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 is recorded **
Presence is logged ***

* Scribe; please contribute online to the minutes at: http://etherpad.tools.ietf.org:9000/p/notes-ietf-102-lpwan
** Recordings and Minutes are public and may be subject to discovery in the event of litigation.
*** From the Webex login

Minute takers, jabber scribes

- Minutes
  - Etherpad: http://etherpad.tools.ietf.org:9000/p/notes-ietf-102-lpwan
  - Minute takers volunteers?
- Remote participation
  - Meetecho: http://www.meetecho.com/ietf102/lpwan
  - Jabber: lpwan@jabber.ietf.org
    - Jabber scribe volunteers?
- Mailing list: lp-wan@ietf.org
  - To subscribe: https://www.ietf.org/mailman/listinfo/lp-wan
- Meeting materials: https://datatracker.ietf.org/meeting/102/materials.html/#lpwan

Agenda bashing

09:30	Opening, agenda bashing (Chairs) • Note-Well, Scribes, Agenda Bashing, Approval minutes from last meeting • Status of drafts (WGLC / forthcoming WGLC) • Presenters: The Chairs • + Hackathon report from Dominique Barthel	15mn
09:45	draft-ietf-lpwan-ipv6-static-context-hc • Presenters: Dominique Barthel, Carles Gomez and Ana Minaburo • Goal: info on WGLC conclusion, submit for publication	45mn
10:30	draft-ietf-lpwan-coap-static-context-hc • Presenters: Laurent Toutain -- Ricardo Andreasen • Goal: WGLC; SCHC/OSCORE presentation	45mn
11:15	draft-petrov-lpwan-ipv6-schc-over-lorawan • Presenter: Nicolas Sornin • Goal: present advancement, call for adoption ?	10mn

Agenda bashing (cont.)

11:25	draft-zuniga-lpwan-schc-over-sigfox • Presenter: Juan-Carlos Zuniga • Goal: draft update and discussion about ACK-on-Error mode, call for adoption ?	15mn
11:40	draft-minaburo-lpwan-nbiot-hc • Presenters: Edgar Ramos • Goal: discuss NB-IoT entities with SCHC	05mn
11:45	draft-toutain-core-time-scale • Presenters: Laurent Toutain • Goal: Get support from LPWAN to request attention from CORE	05mn
11:50	draft-authors-lpwan-schc-802154 • Presenter: Charlie Perkins • Goal: introduce the draft	05mn
11:55	AOB • (Charlie Perkins on IEEE)	05mn

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

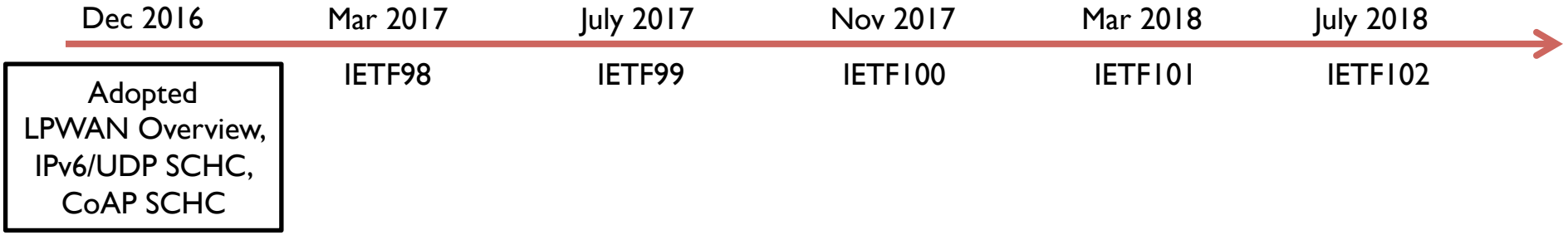
Rechartering

- 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)

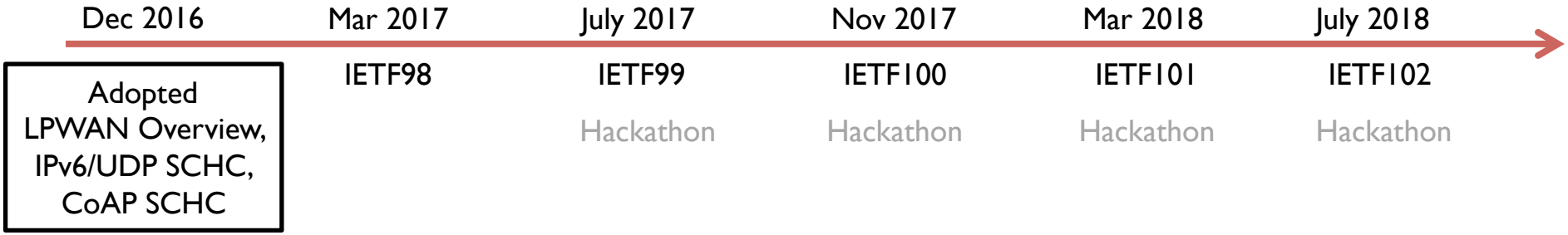
Charter - Milestones

Date	Milestone
Jul 2018	Submit CoAP compression mechanism to the IESG for publication as a Proposed Standard
Jul 2018	Submit IP/UDP compression and fragmentation mechanism to the IESG for publication as a Proposed Standard
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

Milestones


Dec 2016
Mar 2017
July 2017
Nov 2017
Mar 2018
July 2018
IETF98
IETF99
IETF100
IETF101
IETF102
Adopted
LPWAN Overview,
IPv6/UDP SCHC,
CoAP SCHC

Milestones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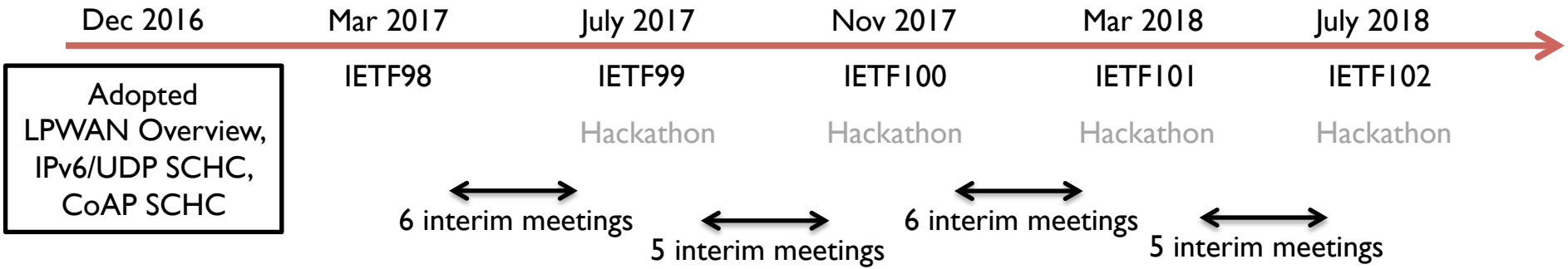
Hackathon
Hackathon
Hackathon
Hackathon
Adopted LPWAN Overview, IPv6/UDP SCHC, CoAP SCHC

Milestones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Hackathon
Hackathon
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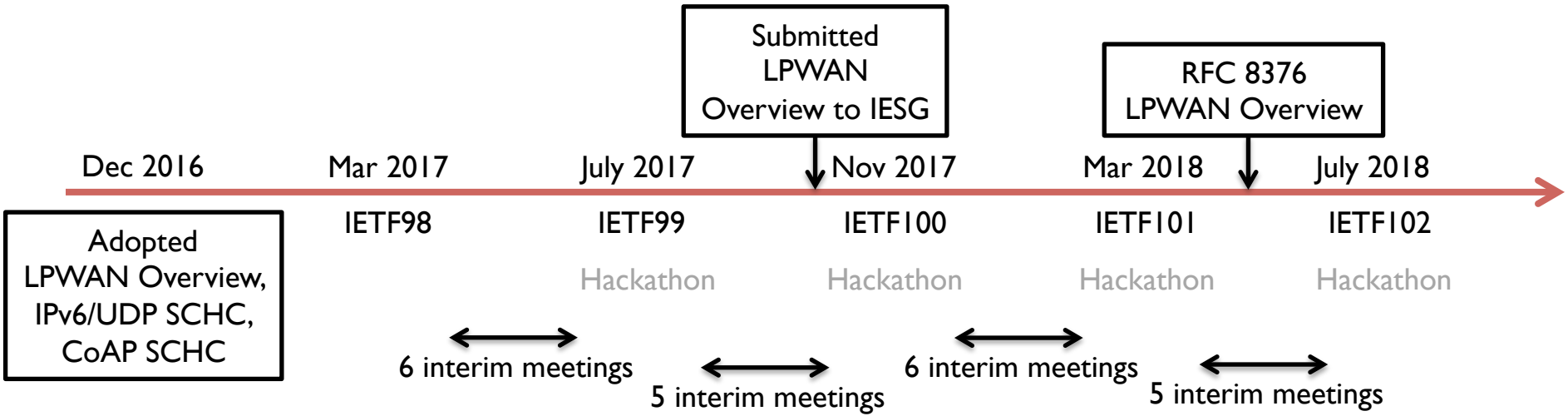
Hackathon
6 interim meetings
5 interim meetings
6 interim meetings
5 interim meetings

Milestones


Submitted
LPWAN
Overview to IESG
RFC 8376
LPWAN Overview
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6 interim meetings
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SCHC Hackathon@102 report

Authors:
Dominique Barthel <dominique.barthel@orange.com>

Hackathon plan

- Long term plan
  - Provide open source implementation of SCHC
  - https://datatracker.ietf.org/doc/draft-ietf-lpwan-ipv6-static-context-hc/
- Get feedback on draft by reading, discussing, coding, testing
- Advance state of code to reflect -16

What got done

- Educated two newcomers on SCHC, who provided a fresh review
- Updated a few seasoned contributors on recent draft advances
- A dozen notes for draft improvement, one functional
- Updated fragmentation code
  - https://github.com/tanupoo/schc-test
  - https://github.com/adjih/schc-hackathon
  - More accurate implementation of draft
  - Updated to reflect -16 changes
- Improved nw-side Python implementation of compression
  - https://github.com/ltn22/SCHC

What we learned

- We already knew constrained device setup/operation is time-consuming
  - Use micropython package on Linux
  - https://github.com/micropython/micropython
- Going forward, n\eed to structure our code base into
  - Computer-based Python3
  - Linux-based micropython
  - Pycom's own version of micropython

Thanks to the participants

- Cédric Adjih
- Dominique Barthel
- Matthieu Brient → First time IETF, Hackathon
- Arunprabhu Kandasamy
- Kyle Larose → First time LPWAN hackathon
- Ivaylo Petrov
- Soichi Sakane → Remote from Japan
- Laurent Toutain
- Jean-Luc Vaillant → First time IETF, Hackathon