Authors:
Laurent Toutain <Laurent.Toutain@imt-atlantique.fr>
Carles Gomez <carlesgo@entel.upc.edu>
Ana Minaburo <ana@ackl.io>
Dominique Barthel <dominique.barthel@orange.com>
Juan Carlos Zuniga <JuanCarlos.Zuniga@sigfox.com>
Presentation agenda

• What is this draft about?
• What has happened since IETF103?
• Hackathon@IETF104 report
• What is coming up next?
What is this draft about?
3 deliverables of this draft

- Specification of a Header Compression engine (Section 7)
  - Generic engine, uses Static Context (-> SCHC)
- Specification of UDP/IPv6 compression (Section 10)
  - Using this SCHC engine
- Specification of a fragmentation protocol (Section 8)
  - Has 3 different “modes” described in this draft
  - Different modes address different requirements
What has happened since IETF103?
What has happened since IETF103?

- Second WGLC initiated Nov 12\textsuperscript{th}, closed Nov 27\textsuperscript{th}
  - Devoted to fragmentation
- Presentation of fragmentation to LoRa Alliance Nov 20\textsuperscript{th}
- MIC made optional again
  - Integrity Checking is mandatory, MIC is optional
  - Ticket #32 duly updated with discussion items and conclusions
- Text reworked based on Charlie’s review
  - Lots of text improvements, thanks Charlie!
  - Target Value type and interoperable Rule description pushed off to another draft
- Published -18 Dec 14\textsuperscript{th}, 2018
What has happened since IETF103?

• Submitted to IESG Dec 15th, Standards track
• Early IoT Dir review comments by Carsten, March 4th
  – Thank you, Carsten!
• IETF104 Hackathon March 23rd - 24th
SCHC Hackathon at IETF104

9 team members
• Cédric Adjih
• Sergio Aguilar**
• José Ignacio Alamos*
• Sandoche Balakrichenan
• Dominique Barthel
• Antoine Bernard*
• Ivaylo Petrov
• Shoichi Sakane+
• Laurent Toutain

* First timer @ IETF/Hackathon
+ Remote

https://github.com/openschc
Work done at Hackathon-104

- Made OpenSCHC easier to use
  - Cleaned up code repo, added README, new Wiki
  - Adjusted code to run with micropython, not just Python3
  - Added/changed unit tests to support Pytest
  - Added Sphinx documentation
- Improved functionalities
  - Augmented test coverage
  - Implemented more compression functionalities
  - Added connector to exchange messages over LoRaWAN with pycom device
Lessons learned at Hackathon-104

• Some parts of spec not understood by implementors
  – We will add examples in Appendix section

• Implementing a full system requires describing the compression rule, the fragmentation parameters, etc.
  New draft started about data model for these
  – draft-toutain-lpwan-schc-yang-data-model
  – Work at this hackathon provides food for new draft
What is coming up next?
What is coming up next?

• Act on Carsten’s comments
• Expect to publish -19 around end of April
• Work in synch with reviews by IESG
• Carry on OpenSCHC development
Thank you for your attention