

draft-ietf-lpwan-schc-over-sigfox-01 & PySCHC Implementation

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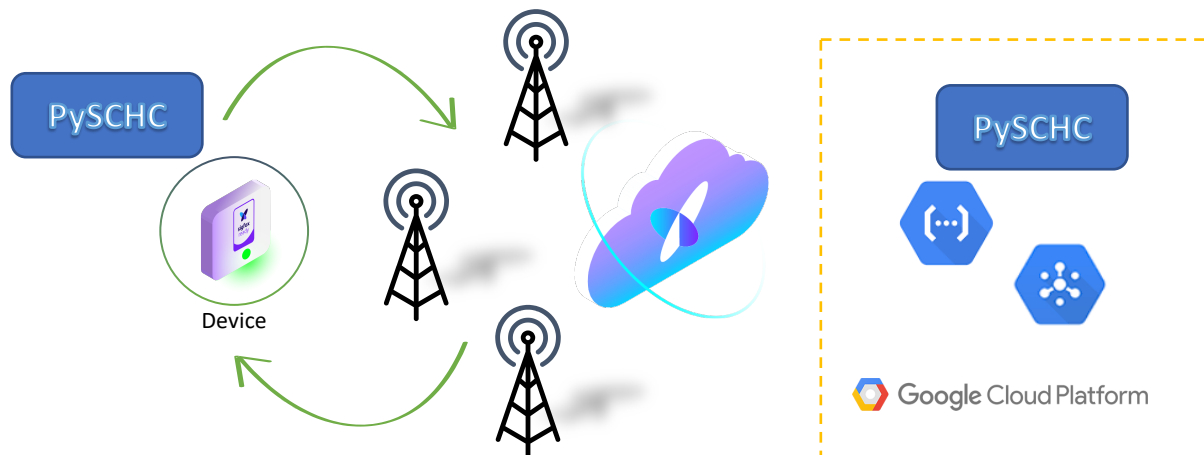
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Draft Status

- Work affected due to cancelled Vancouver's F2F IETF 107 meeting & Hackathon
 - Working updates on new remote setup
- Last draft updates (rev 01)
 - Added more parameters for **ACK-on-Error data fragmentation and integrity mode** on draft-ietf-lpwan-schc-over-sigfox-01
 - Tested new parameters over **University of Chile's PySCHC** implementation for different payload sizes, such as:
 - Text file – 53 bytes
 - Small png Image – 356 bytes

Network Architecture

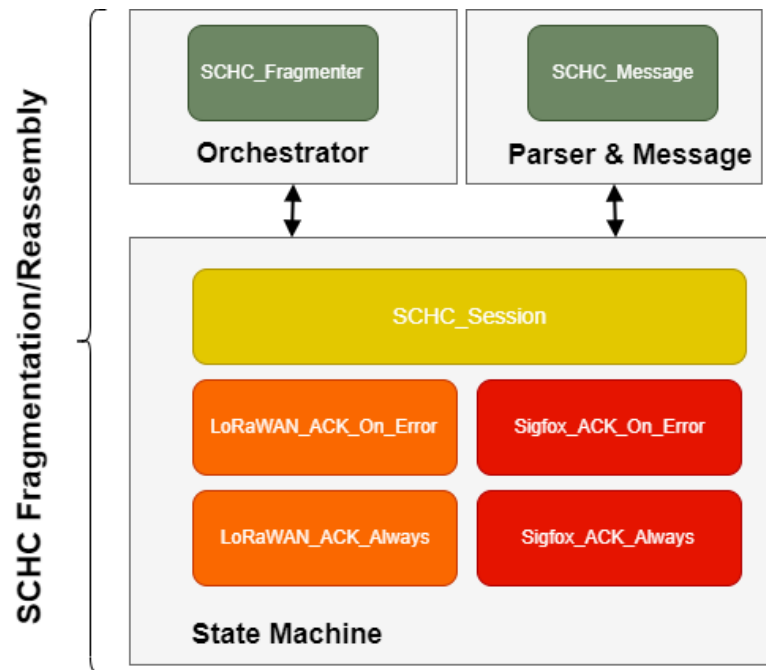
- PySCHC SW
- Pycom
- Sigfox Network
- Google Cloud *



* <https://cloud.google.com/community/tutorials/sigfox-gw>

PySCHC SW Architecture

- SCHC Fragmenter : **ACK-on-Error**
- SCHC Profile : **Sigfox**
- Dev platform : **Pycom (LoPy4)**
- App platform : **Google Cloud**



Next Steps

- Update references and terminology to match RFC 8724
- Usage of [Sigfox Sequence #] on SCHC Receiver to optimize SCHC ACK transmissions in ACK-on-Error (e.g. All-1 fragment)
- Fine-tuning of:
 - Timers
 - SCHC Header fields (Rules, DTag, etc.)
- Interoperability tests between PySCHC and other implementations should also help fine-tuning protocol parameters
 - Planned for upcoming IETF Hackathons:
 - IETF Madrid? IETF Bangkok? – TBD at the moment