

draft-ietf-lpwan-schc-over-sigfox-08

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Draft updates since IETF 111

- rev 05 -> 06
 - SCHC Compound ACK mechanism added
- rev 06 -> 07
 - SCHC Compound ACK split as generic mechanism for all LPWANs
 - Yang model description added to SCHC Compound ACK
- rev 07 -> 08
 - Added normative reference to SCHC Compound ACK usage for SCHC/Sigfox, together with signaling examples
 - SCHC-Abort definitions added

Hackathon – SCHC/Sigfox

- Objectives:
 - Use SCHC over Sigfox draft in a "real case" scenario
 - Mini weather station: Measure temperature and humidity
 - Send JSON file with measured data from Sigfox Device
- Equipment:
 - LoPy4
 - Pysense
- Codebase
 - SCHC over Sigfox Project in github
 - url: <https://github.com/schc-over-sigfox>



W: 0
 001 - , "light":
 010 - ": 58.64736
 011 - 61903, "hum
 100 - "temp": 21.
 101 - 4.872366,
 110 - {"bat_vol":
 111 - [4, 5]}

W: 0
 100 - p": 21.8871
 101 - 54949, "tem
 110 - {"hum": 57.
 111 - 5}

Implementation and Results

- LoPy4 + Pysense
 - Two threads
 - One thread in charge of sensing
 - Second thread handles SCHC over Sigfox (i.e., fragmentation, transmissions, etc.)
 - Both threads are connected using a list
 - JSON file format:
 - 1- {"temp": XXX, "hum": YYY, "bat_vol": ZZZ, "light": ABC}
 - 2- {"temp": XXX, "hum": YYY}
 - SCHC Fragments per JSON
 - 1- 7 SCHC Fragments (1 window)
 - 2- 4 SCHC Fragments

• Results

Case 2

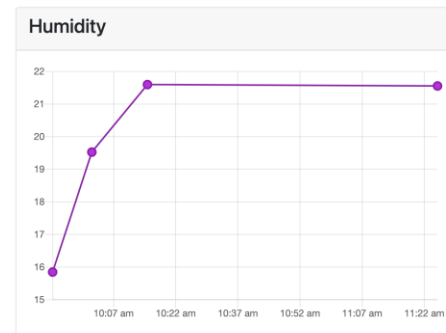
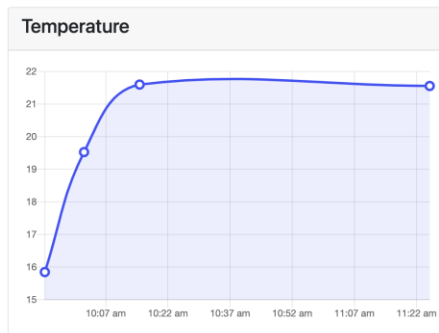
Payload

```
{"hum": 63.08279, "temp": 15.84892}
```

```
{"hum": 53.7601, "temp": 19.52763}
```

```
{"hum": 45.95958, "temp": 21.59757}
```

```
{"hum": 48.65317, "temp": 21.55467}
```



Next steps

- Verify latest details on implementation
- Test one more use case (e.g. asset tracking)

Thanks!