SCHC over Sigfox

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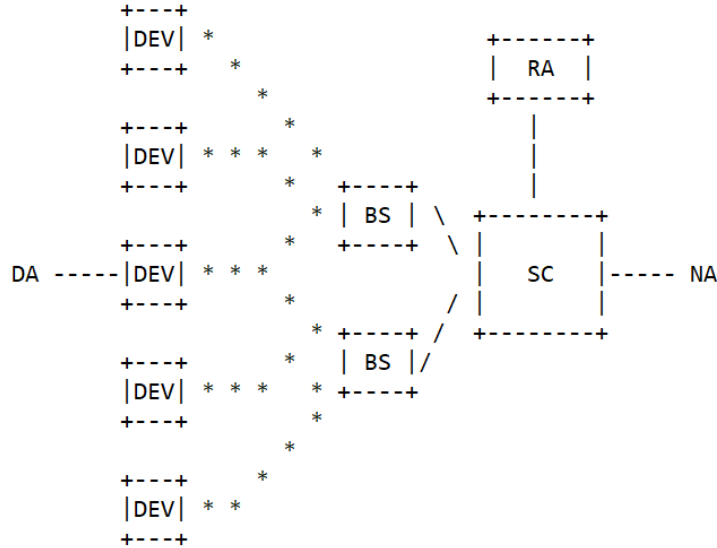100th IETF, Singapore, November 13th, 2017
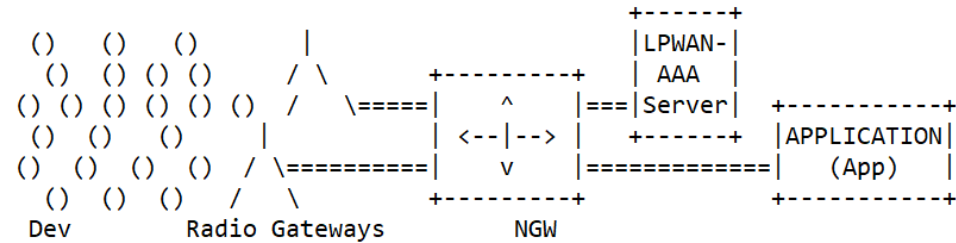
draft-zuniga-lpwan-schc-over-sigfox

Early draft describing open SCHC parameters that need to be defined for technology-specific implementations

- Network architecture
  - Equivalences
- SCHC Rules
  - Parameters and usage
- Fragmentation
  - Preferred modes of operation
  - Parameters
  - Timers

Architecture

```
+---+
|DEV|  *                        +-------+
+---+     *                     |  RA   |
            *                   +-------+
+---+         *                     |
|DEV| * * *    *                     |
+---+        *   +-----+             |
           *     | BS | \   +---------+
+---+         *  +-----+  \ |         |
DA -----|DEV| * * *        |   SC   |----- NA
+---+         *             / |         |
           *   +-----+    /  +---------+
+---+         *  | BS |/
|DEV| * * *  *  +-----+
+---+     *
            *
+---+    *
|DEV| * *
+---+
```

Sigfox network architecture

```
()    ()    ()      |             +------+
  ()  () ()  ()      / \          |LPWAN-|
() () () () () ()   /   \=====|         ^   | AAA |
  ()  ()   ()      |        | <--|-->|  |===|Server| +-----------+
() () () () / \=========|      v   |+------+ |APPLICATION|
  ()  ()  ()   / \       +---------+        |  (App)   |
Dev       Radio Gateways       NGW           +-----------+
```

LPWAN Architecture