Data Collection with TSCH (DY2)

Data Collection is the most important application of WSN. However, it is non-trivial to make it low-latency, high-reliability and energy-efficient. The newly appeared 802.15.4 e (TSCH, Time Slotted Channel Hopping) standard provides a potential solution.

Your tasks:

- Implement on OpenWSN OS, which provides TSCH implementation.
- Use TSCH features: multi-channel, TDMA.
- Topology control: form tree structure, support node join and leave
- Auto scheduling: a frame is composed of two parts -- reserved and contention subframes. Reserved subframes give each source one chance to send to sink. Contention subframes compensate for any losses.

Type: Lab/Project for 2-3 students

Prerequisites:
C programming

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