Implementing LoRa, FSK and further LPWAN interfaces

Monday, 9 September 2019 16:00 (30 minutes)

This talk will give an overview of LoRa and related wireless technologies and their role in IoT infrastructure. An initial RFC for a socket interface had been submitted last summer as proof of concept - a linux-lora.git staging tree and linux-lpwan mailing list have been in use for collaboratively iterating on patches towards a mergeable proposal. Open topics include abandoning PF_LORA in favor of PF_PACKET and how to layer PF_LORAWAN on top of LoRa and FSK; on the driver side the LoRa gateway chipset SX1301/SX1308 has run into problems with clk/spi/reset, and no solution for expanding from DT to ACPI has been found yet; adding protocol families and testing them on a large range of devices has not been easy, and while many of these wireless technologies share design principles they have so far been unable to share any code on the PHY layer. 6LoWPAN and SCHC are candidates for higher-level soft-MACs. 3D-UNB is one of multiple candidates for getting similar treatment to LoRa.

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