Release Notes 2.4.1

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Updates and new features

Features/Quality

Added support for external I2C pull-up resistors (see API documentation).

Added function to get status of I2C transfer (see API documentation).

Improvements

Added support to build targets nrf52832ble-os, nrf52832ble-mesh, nrf52840ble-os and nrf52840ble-mesh without the Nordic Semiconductor SoftDevice in image file.

Added support for more frequent transmission of BLE-beacons. Previous versions of Mira had a limit of 5 beacons per second. Mira version 2.4.1 supports transmission of up to 10 beacons per second. Keep in mind that BLE-beacons use the radio, and therefore impact Mira network performance. Use BLE-beacons with constraint in performance sensitive Mira applications.

Symbols relating to ringbuffers (ringbuf.h and ringbuf.c) have been removed. Users are now free to integrate their own C implementation of ring buffers using these symbol names.

Bugfixes

Resolved an issue where front end modules (FEM) were not controlled correctly during the process of joining of a network (mira_net_get_state() returns "not associated" or "associated").

Resolved an issue where calling mira_fota_init() or connecting to an UDP socket *before* calling mira_net_init() caused a watchdog reset. Instead, errors are returned, as this call order is not supported.

Integrated fix for Nordic Semiconductor ERRATA-87 on the nrf52840 platform.

Known issues

BorderGateway software can, in rare cases, incorrectly detect lost connection between radio and host. This triggers a restart of the host to attempt recovery of operation.

License check at startup of MiraOS may freeze if the license is corrupt or incorrect.

License check at startup of MiraMesh may freeze if the license area is empty.

Limitations

The MKW41Z chipset is not supported in 2.4.1. Support will be reintroduced in an upcoming release.

Expect high current consumption on platforms running front end modules (FEM) while also running the Nordic Semiconductor SoftDevice. This is due to an inability to control the FEM when the SoftDevice controls the chipset radio. This forces Mira to leave the FEM in bypass, where it does not block RF signals, instead of idle, where it consumes the least power. Running SoftDevice on a battery powered device with a FEM is therefore not recommended.