

Release Notes 2.4.2

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Updates and new features

Features/Quality

Support for the NXP MKW41z chipset is reintroduced.

Improvements

General stability increments. Expect better PDR and stability, especially on larger networks.

Introduced a check for BLE beacons with too large payloads in `mira_ble_advertisement_send_adv_nonconn_ind()`. The API now returns an error instead of overflowing the payload buffer.

Introduced assert that `mira_radio_timeslot_*` functions are not called from IRQ.

Bugfixes

Resolved an issue present in versions 2.4.0 and 2.4.1 where, in very rare cases, a race condition could occur and cause the radio to stop executing. The issue could not be reproduced in earlier versions.

Resolved an issue where some `rf_slots_*` functions weren't exposed, and therefore unusable:

- `rf_slots_get_packet_rssi()`
- `rf_slots_get_actual_power()`
- `rf_slots_get_max_power()`
- `rf_slots_set_frontend_config()`
- `rf_slots_get_packet_length()`

Resolved an issue where linking custom ISR routines was cumbersome due to name conflicts. To solve this, MiraOS nrf-platform ISR routines are renamed with a "mira_"-prefix. The old symbol names are still available but deprecated and will be removed in future versions.

Introduced workaround for Nordic Semiconductor nRF52840 ERRATA 87.

Known issues

See previous release notes.

Limitations

Support not yet implemented for the MKW41z:

- Standalone stack - MiraMesh
- Frontend control
- Renaming of ISR routines. Potential naming conflict of ISR routines is still present. Workaround is to change name of custom ISR routines linked to Mira.

`rf_slots` API functionality not yet implemented (for all platforms):

- Support for 802.15.4 modulation
- Support for arbitrary packet format
- Support for priority between radio slots
- Support for receiving BLE packets

Note that this functionality isn't present in previous releases either.

Upcoming changes

The ARM VFP ABI (hard floating point) ABI will be used instead of ARM EABI ABI for the nRF chipsets in the next minor release (2.5.0). This is the same ABI used in versions before 2.4.0.

nRF build targets without the Nordic Semiconductor SoftDevice may be removed, at the earliest, in version 2.6.0. A deprecation will be announced at least one minor release prior to removal of the build target. Contact LumenRadio if your product can't be changed to use the SoftDevice.