

# ERS NB-IoT/LTE-M – FW Release Notes

## FW 1.1.0

### Release content

Major feature and security update. Adds RED 3.3 compliance, hardened NFC security, delta OTA update support, secure credential storage in KMU, expanded LwM2M configurability, and multiple fixes for issues identified in FW 1.0.0.

### Known issues

#### Sensor

- **Issue #15:** NFC write of certain lengths corrupts the NFC memory.

Workaround: Temporary fix implemented in ELSYS Sensor Settings app

#### LwM2M

- **Issue #16:** Data in buffer gets truncated. Number of stored records limited to 40 in total. More info: <https://github.com/zephyrproject-rtos/zephyr/issues/109814>

Workaround: Do not configure the device to send more than a total of 40 data records at a time.

### New Features / Improvements

- RED 3.3 (EN18031-1/-2) compliant firmware release with improved security, reliability, and feature set.
  - (Fixes FW 1.0 Issue #7)
- NFC security hardening is now the normal operating mode, with encrypted write flow and initial commissioning mode for setup.
- OTA updates via LwM2M and ELTP now include delta update support for smaller transfer sizes.
- Credentials (LwM2M, ELTP) are stored in secure modem key storage (KMU) and removed from app RAM after provisioning.
- LwM2M PSK identity and endpoint (Node ID) are now configurable independently.
- LwM2M registration explicitly advertises UQ queue-mode binding.

- Sensor error reporting is available via LwM2M (/3/0/11) and ELSYS debug info (/31502/0/9), with additional ELTP error uplink support.
- Traffic light control/measurement handling is available and configurable for variants with PIR.
- Band locking supports multi-band operation through bitmask-based configuration.

## Bugfixes

- ELTP endpoints now support DNS resolution.
  - (Fixes FW 1.0 Issue #8)
- APN handling now defaults cleanly to auto when unset, allowing SIM/network-provided APN selection.
  - (Fixes FW 1.0 Issue #14)
- LED/PIR coordination fixes reduce false triggers and improve ambient-light measurement stability during LED activity.
  - (Fixes FW 1.0 Issue #13)
- Multi-sample LwM2M send behaviour avoids misleading timestamp (5518) inclusion in composite path sets.
  - (Fixes FW 1.0 Issue #10)
- LwM2M setup now clears stale Security and Server object instances after identity/provisioning changes, preventing invalid pairings and setup failures.
  - (Fixes FW 1.0 Issue #11)
- The first LwM2M uplink now reports battery voltage correctly instead of sending VDD=0 before the first runtime update.
  - (Fixes FW 1.0 Issue #9)
- LwM2M-triggered factory reset is supported, so factory reset no longer requires NFC.
  - (Fixes FW 1.0 Issue #4)
- CO2 calibration now supports multiple selectable modes via LwM2M: fresh air, ABC, factory, and zero.
  - (Fixes FW 1.0 Issue #6)

## Version history

2026-04-27 First version

2026-06-09 Added issues #15 and #16