

OPERATING SYSTEM FOR EMBEDDED PRODUCTS

LumenRadio's operating system MiraOS enables a large-scale and easy-to-install wireless mesh network. Our patented technologies enable ultra-reliable and Future-Proof connectivity with unparalleled features for the most challenging IoT applications. MiraOS comes with an integrated radio stack and can operate with any radio technology and on any radio chip.



MiraOS is developed for harsh industrial applications, offering state of the art technology for low power mesh networks combining Ultra-Low energy with extreme reliability and accuracy.

With unique features for Industrial IoT applications MiraOS is the perfect fit and will take your wireless sensor networks to another level.

- Ultra-reliable large scale mesh communication with more than 1000 nodes in one sensor network
- Full IPv6 Support
- High-precision time synchronization (<50µs across the network) enables extremely accurate time-stamping of sensor data
- Ultra-low deterministic power consumption, enabling battery-powered meshed sensors

- Low-energy firmware over the air (FOTA)
- Easy commissioning using NFC or Bluetooth concurrent means low installation cost and high flexibility
- Industrial life cycle support
- Open application layer for customer development

See the building blocks of MiraOS on the other side

WHY MIRA FOR INDUSTRY?

For industrial sensor networks such as the ones used for predictive maintenance solutions, wired sensors have until now been the only reliable alternative with disadvantages such as expensive cables, hours of installation work and limitation in scalability.

Wireless sensors in a perfectly applied mesh network, running on battery or energy harvesting technology is today even more reliable and robust than wired solutions. MiraOS enables countless different sensors mounted wirelessly anywhere in a harsh industrial environment.

LOW ENERGY MESH

Ultra-low energy mode, enabling meshed communication between battery-powered sensors. Mira mesh architecture is tailored for harsh industrial applications and offers one of a kind possibility to build large self-healing networks consisting of more than 1000 nodes.

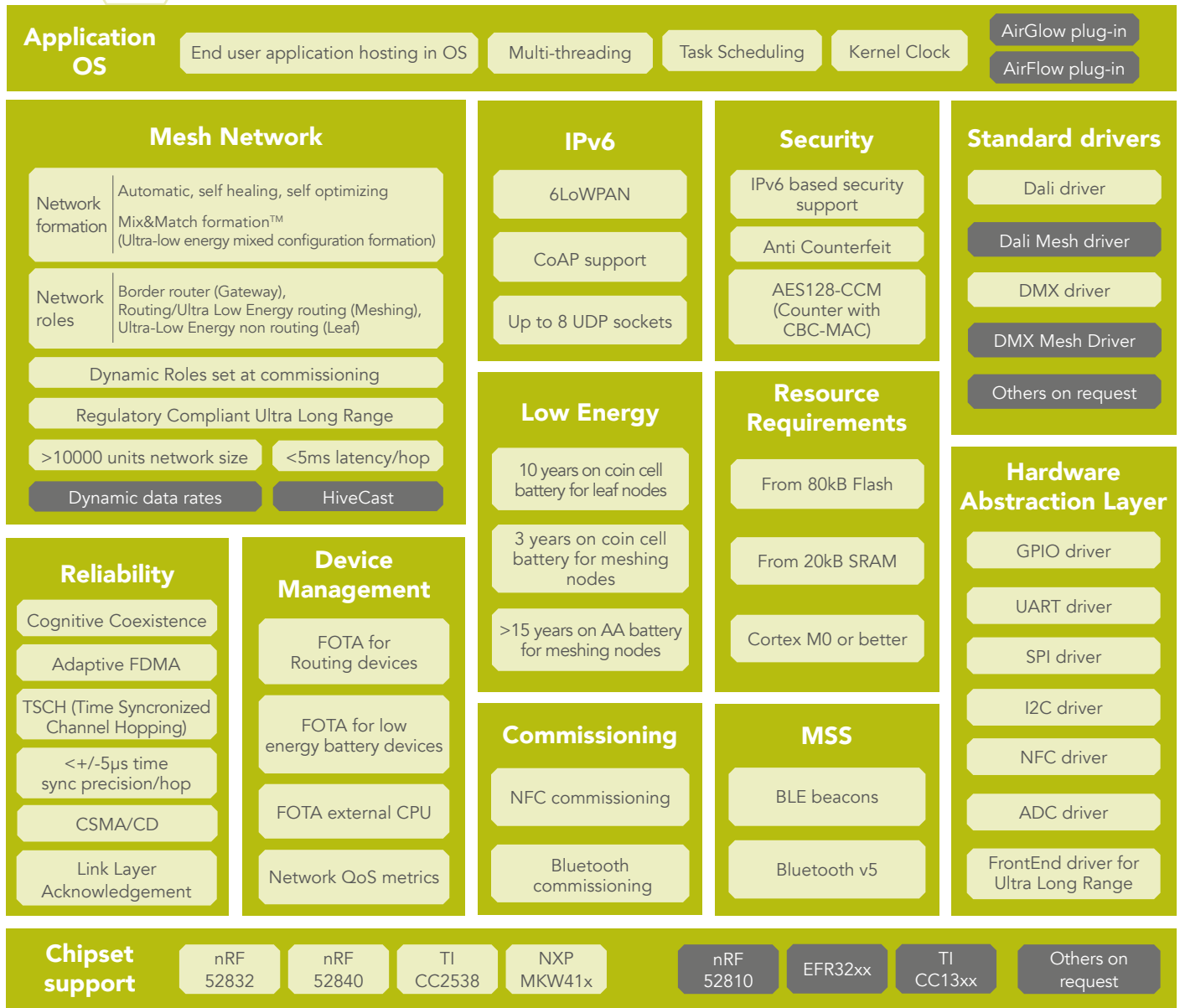
RELIABILITY & ROBUSTNESS

MiraOS industrial configuration is developed with focus on reliability and robustness. Our patented Cognitive Coexistence technology makes your product Future-Proof as it will coexist along with other wireless technologies, not being interfered or causing interference.

EASY COMMISSIONING

MiraOS is developed for easy scaling and commissioning and comes with best in class firmware upgrade over the air (FOTA) functionality. This means easier installation, lower installation cost, increased flexibility and improved profitability as the machine service will be optimally managed.

Building blocks of MiraOS



MiraOS v2.3

Available standard feature

Planned feature, not available yet



With patented ultra-reliable technologies for wireless connectivity, LumenRadio offer radio modules and an operating system that can be integrated straight into their customers products.

CONTACT

Sweden – Headquarters

LumenRadio AB
Svangatan 2B
416 68 Göteborg

+46 31 301 03 70
sales@lumenradio.com

Germany – Sales office

LumenRadio Deutschland GmbH
Mergenthalerallee 10-12
D-65760 Eschborn, Frankfurt

+49 6102 812 003
sales@lumenradio.com