

OPERATING SYSTEM FOR EMBEDDED PRODUCTS

LumenRadio's operating system MiraOS enables large scale and easy-to-install wireless networks for your Security & Access Control products.

Today there is a growing demand for wireless control and sensor products within Security & Access Control to enable new services, remote monitoring and faster installations.

Wired products have, until now, been the only reliable alternative but with disadvantages such as expensive cables, time consuming installation work, with limitations in scalability and inadequate flexibility for re-configuration. Wireless products in a perfectly applied mesh network are more reliable and easier to maintain than wired solutions.



UNIQUE FEATURES FOR SECURITY & ACCESS CONTROL

MiraOS enables your products and services to create high-performing buildings where security is at the focal point.

Our patented technologies offer an ultra-reliable and Future-Proof connectivity solution with unparalleled features for the most challenging IoT applications. MiraOS is the perfect fit for large-scale meshing networks in commercial buildings and gives the opportunity to take your Security & Access Control systems to the next level.

- Collect data from sensors and control devices
- Easy commissioning/maintenance using NFC or Bluetooth v5.0 through a smart device
- Full IPv6 based security support, AES128-CCM, CoAP and TinyDTLS
- Ultra-low energy meshing mode
- Large-scale communication with >1000 nodes in one network
- Scalable and flexible setup, from small to large-sized installations
- Best-in-class firmware update over-the-air
- Open application layer for customized customer development

◆ FOTA – FIRMWARE OVER THE AIR

MiraOS comes with best in class firmware upgrade over the air (FOTA). This gives you the opportunity to upgrade your product and add new features without costly onsite visits and your system will be operational during the update. This means easier installation, increased flexibility, lower maintenance and installation cost. FOTA can be used for both MiraOS and the application even when it is hosted on an external CPU.

◆ COEXISTING MESH

The worst thing that could happen using wireless communication within an access control system or a security solution would be to interfere with other existing critical networks or to be disturbed by the same. MiraOS is developed with focus on reliability and efficient communication and 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.

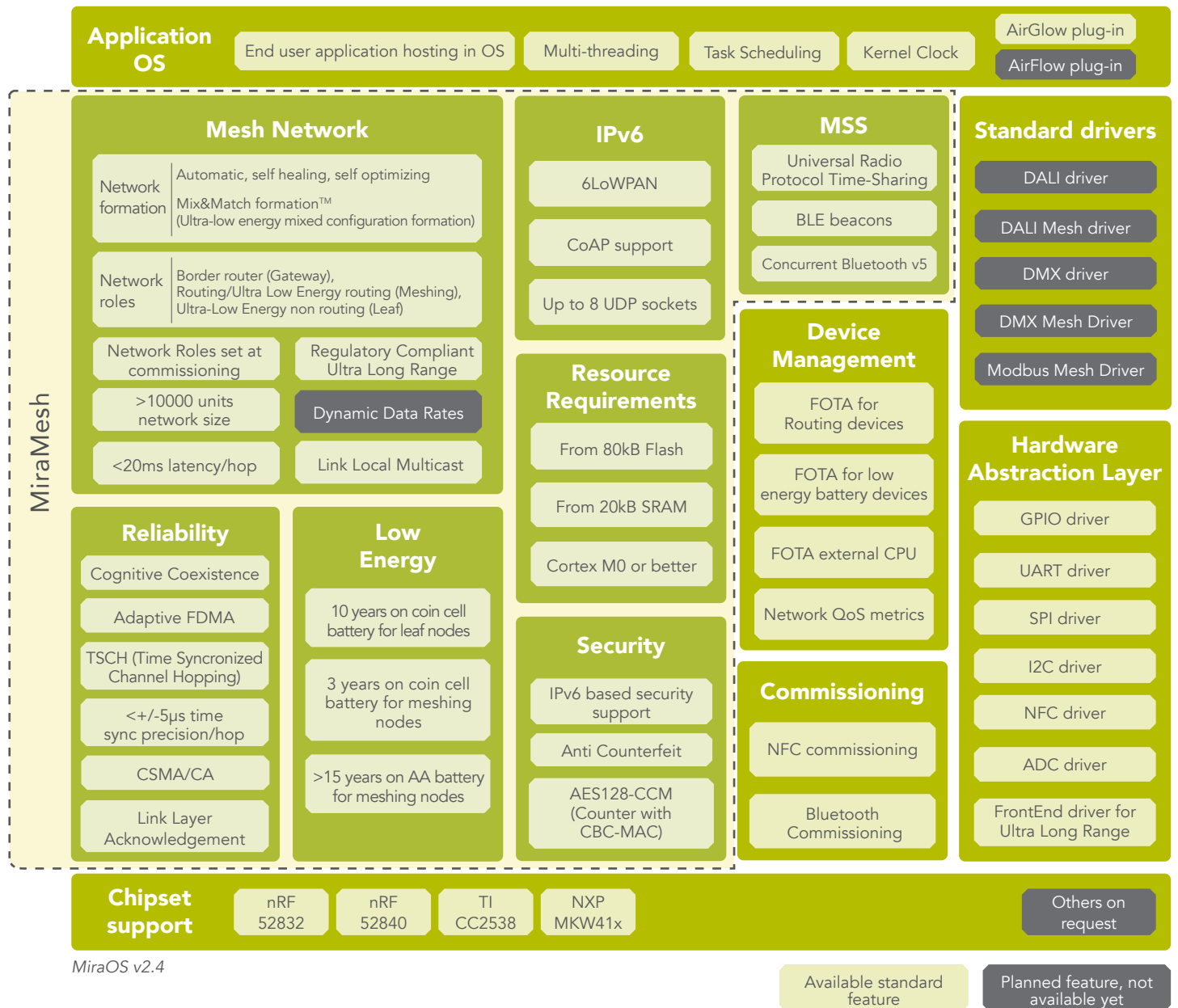
◆ EASY COMMISSIONING

The biggest problem with today's wired Physical Access and building control systems is the expensive and time-consuming installation procedure. MiraOS enables products to be installed in days instead of months. By using NFC or Bluetooth v5.0 for easy commissioning as well as communicating with devices using a mobile app, a controls network can be installed without the need of 3rd party devices.

◆ ULTRA-LOW ENERGY

Ultra-low power mode, enabling meshed communication between battery-powered products. MiraMesh architecture is tailored for critical applications and offers this also on battery driven products with battery operation of over 10 years.

Building blocks of MiraOS



MiraOS v2.4



With patented technologies and an unique operating system, LumenRadio provides ultra-reliable mesh connectivity for the most business critical applications.


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