

WIRELESS MESH TECHNOLOGY

MiraOS is an embedded operating system for large-scale and easy-to-install wireless mesh networks. Our patented technologies enable ultra-reliable, low power and Future-Proof connectivity with unparalleled features for the most challenging industrial IoT applications.

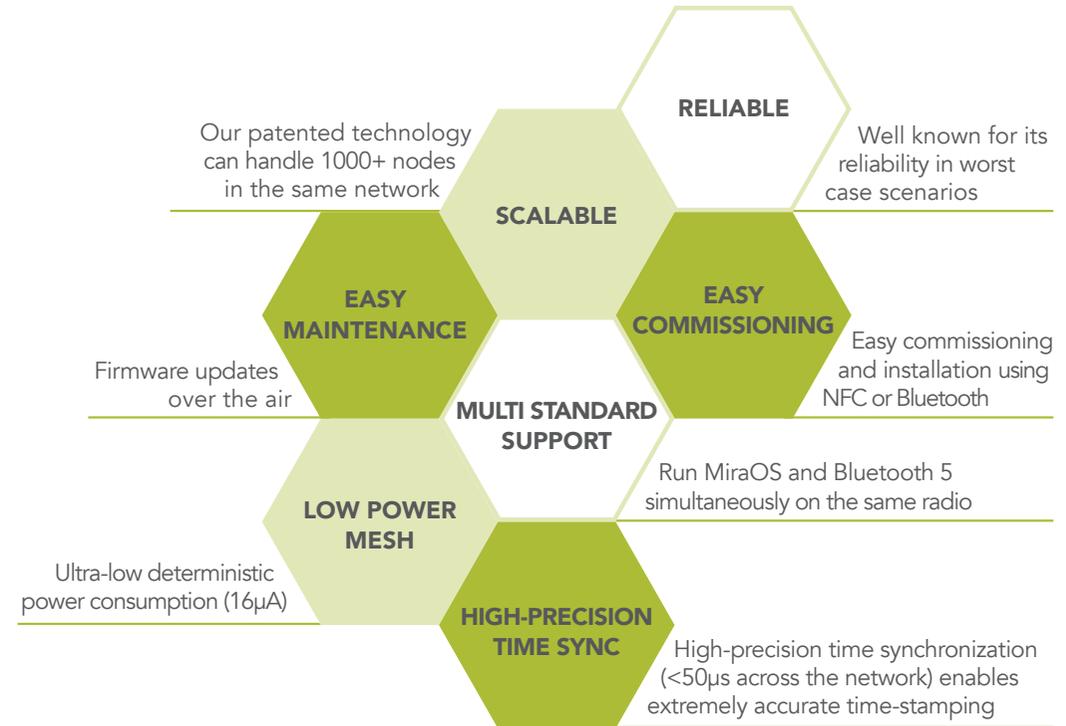
Our solution works in environments where others fail.

WHY MIRAOS FOR INDUSTRY?

Predictive maintenance and process monitoring for new and retrofitted products needs to be cost effective, flexible and reliable. Wireless sensors with MiraOS inside in a perfectly applied mesh network, running on battery are more reliable, robust and cost effective than wired solutions.

MiraOS is an embedded operating system for reliable wireless communication designed for industrial applications where interference and other types of disturbances is widely common.

With unique features for Industrial IoT applications and industrial life cycle support, MiraOS is the perfect fit and will take your wireless products to an enhanced level.



ULTRA-LOW POWER

Ultra-low power 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.

UNIQUE RELIABILITY

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.

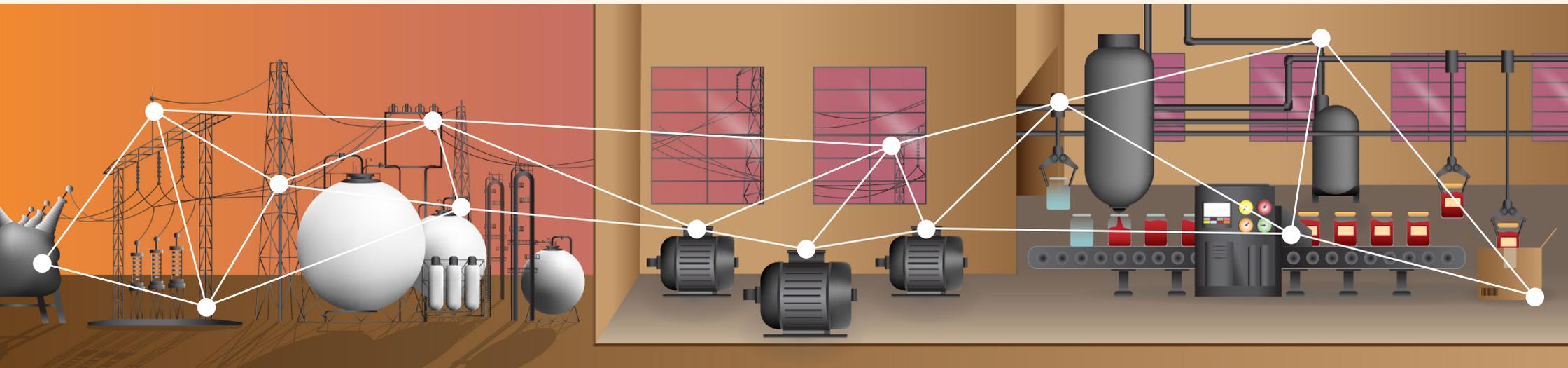
EASY COMMISSIONING

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.

AVOID DOWNTIME BY KEEPING TRACK OF AMBIENT FACTORS

PREDICT FAILURES WITH VIBRATION MONITORING

INCREASE QUALITY IN PROCESS MONITORING



WHEN MIRAOS OUTPERFORMS ITS COMPETITORS

All LumenRadio's products for wireless communication are based on our patented ultra-reliable Cognitive Coexistence technology which lets your product co-exist along other wireless technologies, not being interfered or causing interference.

By adding state of the art algorithms for mesh, ultra-low power, over the air FW-updates, commissioning, large scale networks, we have a solution that works in environments where others fail.

- ✓ In radio environment with lots of disturbances *
- ✓ When low power consumption is critical
- ✓ When data losses in the network are not allowed
- ✓ Where building wide network is needed

* Using Cognitive Coexistence (patented frequency agility)

COGNITIVE COEXISTENCE

MiraOS scans the radio waves and detects the activity from other networks. It then uses that information to predict how the interference will evolve over time and then decides on what channels to use. This is done on every node in the system which avoids causing collisions with other networks.



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.

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